



B. H. Whitley  
Director  
Regulatory Affairs

Southern Nuclear  
Operating Company, Inc.  
42 Inverness Center Parkway  
Birmingham, AL 35242  
Tel 205.992.7079  
Fax 205.992.5296

April 6, 2018

Docket Nos.: 52-025  
52-026

ND-18-0425  
10 CFR 50.90  
10 CFR 52.63

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 and Exemption:  
Consistency and Clarification Changes to Annex Building,  
Auxiliary Building and Basemat ITAAC (LAR-17-040S1)

Ladies and Gentlemen:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) requested an amendment to the combined licenses (COLs) for Vogtle Electric Generating Plant (VEGP) Units 3 and 4 (License Numbers NPF-91 and NPF-92, respectively) by SNC letter ND-17-1811, dated December 15, 2017 [ADAMS Accession Number ML17349A924]. The requested amendment proposed changes to the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the incorporated plant-specific Design Control Document Tier 2\* and Tier 2 information and involves related changes to COL Appendix C (and corresponding plant-specific Tier 1) information. The proposed changes involve consistency changes to Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) to clarify the thickness of the Nuclear Island Basemat, to revise wall thicknesses and descriptions in the Auxiliary Building and clarify floor thicknesses in the Annex Building. Pursuant to the provisions of 10 CFR 52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, Design Certification Rule was also requested for the plant-specific DCD Tier 1 material departures.

Enclosures 6 and 7 to this letter supplement LAR-17-040 to address clarification questions received from the NRC Staff, which were transmitted by electronic mail (email) on February 28, 2018 [ADAMS Accession Number ML18059A173], and discussed in the March 8, 2018 NRC public meeting to support review of LAR-17-040. In addition, this supplement also contains a revised COL Appendix C (and associated plant-specific Tier 1) markup in Enclosure 8 to reflect the changes described in the response to the clarification questions.

**Enclosure 7 contains information that is considered proprietary; therefore, Enclosure 7 is requested to be withheld from disclosure to the public under 10 CFR 2.390.**

An affidavit from SNC supporting withholding under 10 CFR 2.390 is provided as Enclosure 9. Enclosure 10 is Westinghouse's Proprietary Information Notice, Copyright Notice and CAW-18-4721, Application for Withholding Proprietary Information from Public Disclosure and Affidavit. The affidavit sets forth the basis upon which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.390 of the Commission's regulations. Accordingly, it is respectfully requested that the information that is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations.

Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse affidavit should reference CAW-18-4721 and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 2 Suite 259, Cranberry Township, Pennsylvania 16066. Correspondence with respect to proprietary aspects of this letter and its enclosures should also be addressed to Brian H. Whitley at the contact information within this letter.

The information provided in this LAR supplement does not impact the scope, technical content, or conclusions of the Technical Evaluation, Significant Hazards Consideration Determination, or Environmental Considerations of the original LAR provided in Enclosure 1 of SNC letter ND-17-1811.

This letter has been reviewed and confirmed to not contain security-related information. This letter contains no regulatory commitments.

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

Should you have any questions, please contact Mr. Wesley Sparkman at (205) 992-5061.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 6<sup>th</sup> of April 2018.

Respectfully submitted,



---

Brian H. Whitley  
Director, Regulatory Affairs  
Southern Nuclear Operating Company

- Enclosures
- 1 – 5) (Previously submitted with the original LAR, LAR-17-040, in SNC letter ND-17-1811)
  - 6) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Response to NRC Clarification Questions Regarding the LAR-17-040 Review (LAR-17-040S1)
  - 7) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Response to NRC Clarification Questions Regarding the LAR-17-040 Review **(Withheld Information)** (LAR-17-040S1)
  - 8) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Revised Proposed Changes to the Licensing Basis Documents (LAR-17-040S1)
  - 9) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Affidavit from Southern Nuclear Operating Company for Withholding Under 10 CFR 2.390 (LAR-17-040S1)
  - 10) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Westinghouse Authorization Letter CAW-18-4721, Affidavit, Proprietary Information Notice and Copyright Notice

U.S. Nuclear Regulatory Commission

ND-18-0425

Page 4 of 5

cc:

Southern Nuclear Operating Company / Georgia Power Company

Mr. S. E. Kuczynski (w/o enclosures)

Mr. M. D. Rauckhorst

Mr. D. G. Bost (w/o enclosures)

Mr. M. D. Meier (w/o enclosures)

Mr. D. H. Jones (w/o enclosures)

Mr. J. B. Klecha (w/o enclosures)

Mr. G. Chick (w/o enclosures)

Mr. D. L. McKinney (w/o enclosures)

Mr. T. W. Yelverton (w/o enclosures)

Mr. B. H. Whitley

Ms. C. A. Gayheart (w/o enclosures)

Mr. C. R. Pierce

Ms. A. G. Aughtman

Mr. D. L. Fulton

Mr. M. J. Yox

Mr. J. Tupik

Mr. B. H. Whitley

Mr. W. A. Sparkman

Ms. A. C. Chamberlain

Ms. A. L. Pugh

Mr. F. J. Redwanz

Document Services RTYPE: VND.LI.L00

File AR.01.02.06

Nuclear Regulatory Commission

Mr. W. Jones (w/o enclosures)

Ms. J. Dixon-Herrity

Mr. C. Patel

Ms. J. M. Heisserer

Mr. B. Kemker

Mr. G. Khouri

Ms. S. Temple

Mr. F. Brown

Mr. T. E. Chandler

Ms. P. Braxton

Mr. T. Brimfield

Mr. C. J. Even

Mr. A. Lerch

State of Georgia

Mr. R. Dunn (w/o enclosure 7)

Oglethorpe Power Corporation

Mr. M. W. Price (w/o enclosure 7)  
Mr. K. T. Haynes (w/o enclosure 7)  
Ms. A. Whaley (w/o enclosure 7)

Municipal Electric Authority of Georgia

Mr. J. E. Fuller (w/o enclosure 7)  
Mr. S. M. Jackson (w/o enclosure 7)

Dalton Utilities

Mr. T. Bundros (w/o enclosure 7)

Westinghouse Electric Company, LLC

Mr. L. Oriani (w/o enclosures)  
Mr. G. Koucheravy (w/o enclosures)  
Mr. M. Corletti  
Mr. M. L. Clyde  
Ms. L. Iller  
Mr. D. Hawkins  
Mr. J. Coward

Other

Mr. S. W. Kline, Bechtel Power Corporation  
Ms. L. A. Matis, Tetra Tech NUS, Inc. (w/o enclosure 7)  
Dr. W. R. Jacobs, Jr., Ph.D., GDS Associates, Inc. (w/o enclosure 7)  
Mr. S. Roetger, Georgia Public Service Commission (w/o enclosure 7)  
Ms. S. W. Kernizan, Georgia Public Service Commission (w/o enclosure 7)  
Mr. K. C. Greene, Troutman Sanders (w/o enclosure 7)  
Mr. S. Blanton, Balch Bingham  
Mr. R. Grumbir, APOG (w/o enclosure 7)  
NDDocumentinBox@duke-energy.com, Duke Energy (w/o enclosure 7)  
Mr. S. Franzone, Florida Power & Light (w/o enclosure 7)

**Southern Nuclear Operating Company**

**ND-18-0425**

**Enclosure 6**

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

**Response to NRC Clarification Questions Regarding  
the LAR-17-040 Review**

**(LAR-17-040S1)**

**(This Enclosure consists of 6 pages, including this cover page)**

The following are clarification questions provided by the NRC Staff regarding the review of Southern Nuclear Operating Company (SNC) License Amendment Request (LAR) 17-040, which was submitted by SNC letter ND-17-1811 on December 15, 2017.

### **NRC Clarification Question #1**

What basemat concrete thickness (5'- 10 3/8" or 6') is used in the model? Why change to the basemat is inconsistency not a design change?

### **SNC Response to Clarification Question #1**

The minimum thickness of the basemat used in the AP1000 Containment Internal Structure (CIS) model is 6'-0". The use of a minimum 6'-0" concrete thickness in the CIS model is due to the current modelling method, in which shell elements are used to represent the Containment Vessel Bottom Head (CVBH) and have to share nodes with the solid elements representing concrete. A minimum concrete thickness of 6'-0" is used in the model and is consistent with what is used in the supporting design calculations.

Since the concrete thickness of the basemat in the existing design is not being changed in this license amendment request (LAR), the proposed change is considered a consistency change to reconcile the licensing basis and the design. The purpose of the LAR is to clarify that the 6-foot-thick basemat, includes the thickness of the CVBH.

### **NRC Clarification Question #2**

What is basis of calculating the affected area where concrete is less than 6'.

### **SNC Response to Clarification Question #2**

The area of concrete that is less than 6'-0" is calculated based on the theoretical shape of the ellipsoidal bottom head. By using the formula for an ellipse shown below, the area of the CVBH where the bottom head makes up part of the 6'-0" thickness of the basemat can be found.

$$\frac{x^2}{H^2} + \frac{y^2}{B^2} = 1, \text{ where:}$$

$$H = \text{CVBH radius} = 65'-0"$$

$$B = \text{Tangent elevation (104'-1.5") - CVBH inside surface elevation (66'-6")} = 37'-7.5"$$

$$y = B - 1.625" = 449.875"$$

Solving for x:

$$x = \sqrt{H^2 - \frac{H^2 y^2}{B^2}}$$

$$x = 5'-6"$$

The region below the CVBH where the bottom head makes up part of the thickness of the 6-foot thick basemat is an area of approximately 5'-6" in radius (11 feet in diameter).

**NRC Clarification Question #3**

What is the maximum stress in the basemat at the affected location, and corresponding controlling design loads and load combination?

**SNC Response to Clarification Question #3**

The rebar design in the top side of the dish below the CV is shown in UFSAR Figure 3.8.5-3. Referring to UFSAR Table 3.8.4-2, the controlling design load combinations and reinforcement area provided for the affected area are as follows:

<b>UFSAR Figure 3.8.5-3 Layers</b>	<b>Required (1) (in<sup>2</sup>/ft)</b>	<b>Provided (2) (in<sup>2</sup>/ft)</b>	<b>Ratio (1/2)</b>	<b>Load Combination</b>
Layer 4: N/S Direction	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 4em; margin-right: 10px;">[</div> <div style="text-align: center;"> <p><b>(See Enclosure 7, NRC Clarification Question #3)</b></p> </div> <div style="font-size: 4em; margin-left: 10px;">]</div> </div>			a, c
Layer 5: E/W Direction				
Layer 1: N/S Direction				
Layer 2: E/W Direction				

As shown in the table above, adequate reinforcement is provided for the basemat around the affected area of the CVBH. The design of the basemat and containment vessel is unchanged. The design used to evaluate the stresses on the basemat due to design basis pressurization of the containment vessel is consistent with the design description in the LAR; those analyses are not affected. Likewise, the clarification of this inconsistency does not require any change to containment structural or peak pressure analyses.

**NRC Clarification Question #4**

Quantify the effect of additional 1-5/8" thick concrete on the mass and stiffness, and stresses in the basemat.

**SNC Response to Clarification Question #4**

As discussed in the response to Clarification Question #2, the region where the containment vessel forms part of the 6'-0" thickness of the basemat is approximately 5'-6" in radius. The cross-sectional area of this region is approximately 95 ft<sup>2</sup>. The cross-sectional area of the containment vessel, with its radius of approximately 65'-0", is approximately 13,273 ft<sup>2</sup>. For comparison, the region of interest is 0.7% of the total cross-sectional area of the Nuclear Island basemat that is below the containment vessel. In conclusion, the cross-sectional area of the region where the containment vessel forms part of the 6'-0" thickness is not significant in comparison to the total area of the basemat below the containment vessel and is negligible when compared to the entire basemat. Because the total affected area is not significant in comparison to the total area of the basemat, the effect on the mass, stiffness and stresses in the basemat is negligible.



**NRC Clarification Question #5**

What is the design basis of the 2'-9" thick section of the wall above 109'-3" as well as the 3'-0" thick section below 109'-3"? Provide controlling loads and load combinations for the wall. Are wall connections changed?

**SNC Response to Clarification Question #5**

Congruent with the design of the Auxiliary Building as described in UFSAR Subsection 1.2.4.3, the design functions of the N-S Shield Wall 2'-9" east of column line L-2 are to maintain structural integrity in the event of a safe shutdown earthquake (protection for the safety-related equipment against the consequences of either a postulated internal or external event) and to provide shielding for the spent resin tank and waste disposal containers. The waste disposal container area is adjacent to the spent resin tank room to the east of this wall. In order to provide adequate shielding for the waste disposal container area, the wall thickness transitions at elevation 109'-3", to form a 3-inch lip. Three hatches sit on the lip formed by the top of the wall at elevation 109'-3". These hatches cover the waste disposal container area.

Referring to UFSAR Table 3.8.4-2, the following are the controlling load combinations and reinforcement area provided for the wall:

		Required (1) (in <sup>2</sup> /ft)	Provided (2) (in <sup>2</sup> /ft)	Ratio (1/2)	Load Combination
Below 109'-3"	Horizontal	(See Enclosure 7, NRC Clarification Question #5)			a, c
	Vertical				
Above 109'-3"	Horizontal				
	Vertical				

The results in this table demonstrate that the reinforcement provided for the wall exceeds the minimum reinforcement required to support the controlling load combination shown. There is no change to the wall connections as a result of the clarification to the thickness of the Auxiliary Building wall at this location. The design of the walls is unchanged by this LAR.

**NRC Clarification Question #6**

Clarify the statement on page 12 of 21 (Enclosure 1) “the lumped mass stick model used to generate safe shutdown earthquake seismic acceleration profiles for the Annex Building was generated using thicknesses consistent with the configuration described in this activity”. Is the seismic model based on 6” floor thickness? Is this model used to obtain seismic forces for the 6” floor design?

**SNC Response to Clarification Question #6**

As discussed in UFSAR Subsection 3.8.2.8.4, the Annex Building (which is a Seismic Category II building) is modeled as a stick model. The stick model is a simple representation of the total mass and stiffness of the building. The mass of the 6" thick floor area in the restroom and kitchen area is considered in the stick model. The vertical acceleration, derived from the stick model, is used to calculate the vertical seismic force for which the subject floor area is designed.

**NRC Clarification Question #7**

Provide the design basis load and load combinations considered for the design of 6” concrete floor in the kitchen and restroom areas on the 117'-6" elevation of the Annex Building including area of the reinforcement required and provided.

**SNC Response to Clarification Question #7**

The subject floor area is designed as a Seismic Category II concrete structure, as described in UFSAR Subsections 3.7.2 and 3.7.2.8.1. The floor is designed for the worst case of the following load combinations, which are equivalent to those listed in UFSAR Table 3.8.4-2.:

1.4DL + 1.7LL (applicable loads of LC1)

1.0DL + 1.0LL + 1.0E (applicable loads of LC3)

Where, DL: Dead Load

LL: Live Load

E: Earthquake Load due to a Safe Shutdown Earthquake (SSE)

Dead load is calculated as the weight of concrete at 150 pounds per cubic foot, the weight of metal decking and the weight of flooring. An additional dead load of [ ]<sup>a,c</sup> pounds per square foot is considered in order to account for miscellaneous loads. The live load is [ ]<sup>a,c</sup> pounds per square foot. The safe shutdown earthquake loads are calculated as described in UFSAR Section 3.7.

The controlling load for these floors is [ ]<sup>a,c</sup>. The area of negative (top) reinforcement required is approximately 0.32 in<sup>2</sup> per foot and the area provided is 0.44 in<sup>2</sup> per foot. The area of positive (bottom) reinforcement required is approximately 0.13 in<sup>2</sup> per foot and the area provided is 0.20 in<sup>2</sup> per foot.

**Note – A completed response with the proprietary values is found in Enclosure 7, NRC Clarification #7.**

**NRC Clarification Question #8**

Provide the quantifiable technical basis to show that the reduction in floor thickness would not affect the ability to maintain personnel dose within the limit prescribed in GDC 19 during a design basis event.

**SNC Response to Clarification Question #8**

The post-accident shielding calculation for the Annex Building establishes the dose rates in the Annex Building rooms for times from less than 2 hours up to 30 days after the design basis accident. The calculation quantifies the contribution to the post-accident dose rates from all applicable post-accident sources. For the Annex Building rooms between column lines 9 and 13 and below the floor at elevation 117'-6", the most notable contributors at the time of peak dose rate are containment penetration streaming (CPS, horizontal streaming) and the external cloud shine (ECS) from the environment outside the Annex Building. With respect to dose that can be shielded by the floor at 117'-6", the relevant contributor is ECS. The contribution from ECS only considered shielding afforded by the Annex Building roof; and conservatively neglected shielding provided by the intermediate floors. Since the kitchen and restroom floors on elevation 117'-6" were not credited as shielding initially, decreasing their thickness will not impact the reported dose rates, radiation zones, calculated personnel dose rates, or General Design Criteria 19 compliance.

**NRC Clarification Question #9**

As part of the LAR, SNC proposes to add several footnotes to Tier 1, Table 3.3-1. One of those footnotes is Note 13. Note 13 indicates that, "The concrete in the kitchen and restroom areas is 2 inches thinner." The only place in Table 3.3-1 in which note 13 is being applied is for the floor in the Annex Building between Column Lines 4 to 4.1 and E to H at the 135'-3" elevation. However, in viewing the UFSAR figures there are no kitchens or restrooms in that area. That area encompasses room 40551, "Containment air filtration exhaust Room A" and a portion of 40550, "Staging and Storage area." So it appears to be an error to apply footnote 13 to this area.

Furthermore, the body of the LAR discusses the kitchen and restrooms in which the concrete thicknesses are changing as being Rooms 40401 (restroom), 40404 (restroom), and 40405 (kitchen). These are on the 117'-6" elevation of the Annex Building, between approximately column lines 11 and 13 and G and I.1.

Did SNC apply the footnote to the incorrect floor in Tier 1, Table 3.3-1?

**SNC Response to Clarification Question #9**

In Enclosure 4 of the original LAR submittal (SNC letter ND-17-1811), the markups for COL Appendix C (and associated plant-specific Tier 1) Table 3.3-1, the Note 13 was applied incorrectly to the Annex Building Floor from column lines 4 to 4.1 and E to H at elevation 135'-3". As described in Enclosures 1 and 3 of the original LAR submittal, the new Note 13 applies to the flooring in the kitchen and restroom areas; i.e., the Floor from column lines 9 to 13 and E to I.1 at elevation 117'-6".

The markups are changed, as shown in Enclosure 8, to add the footnote to the correct floor elevation.

**Southern Nuclear Operating Company**

**ND-18-0425**

**Enclosure 7**

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

**Response to NRC Clarification Questions Regarding  
the LAR-17-040 Review**

**(Withheld Information)**

**(LAR-17-040S1)**

**(This Enclosure consists of 4 pages, including this cover page)**

**Southern Nuclear Operating Company**

**ND-18-0425**

**Enclosure 8**

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

**Revised Proposed Changes to the Licensing Basis Documents**

**(LAR-17-040S1)**

**Note:**

Added text is shown as bold **Blue Underline**  
Deleted text is shown as bold **~~Red Strikethrough~~**  
\*\*\* Indicates omitted exiting text

**(This enclosure contains 2 pages, including this cover page.)**

**Tier 1 (and COL Appendix C) Table 3.3-1, Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building**

**NOTE** – This markup replaces pg. 3 of Enclosure 4 of the original LAR, LAR-17-040 (ND-17-1811) in its entirety.

<b>Table 3.3-1 (cont.)</b>				
<b>Definition of Wall Thicknesses for Nuclear Island Buildings, Turbine Building, and Annex Building <sup>(1)</sup></b>				
Wall or Section Description	Column Lines <sup>(7)</sup>	Floor Elevation or Elevation Range <sup>(7)(8)</sup>	Concrete Thickness <sup>(2)(3)(4)(5)(9)</sup>	Applicable Radiation Shielding Wall (Yes/No)
<b>Annex Building</b>				
* * *				
Floor	From 4 to 4.1 and E to H	135'-3"	1'-0" <sup>(12)</sup>	Yes
Floor	From 9 to 13 and E to I.1	117'-6"	0'-8" <sup>(12)(13)</sup>	Yes
Floor	From 9 to 13 and E to I.1	135'-3"	0'-8" <sup>(12)</sup>	Yes
* * *				
Containment Filtration Rm A (Floor)	Between column line E to H	135'-3"	1'-0" <sup>(12)</sup>	Yes
Containment Filtration Rm B (Floor)	Between column line E to H	150'-3"	0'-8" <sup>(12)</sup>	Yes
* * *				

**Southern Nuclear Operating Company**

**ND-18-0425**

**Enclosure 9**

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

**Affidavit from Southern Nuclear Operating Company for  
Withholding Under 10 CFR 2.390**

**(LAR-17-040S1)**

(Enclosure 9 consists of 2 pages, excluding this cover page.)

**Affidavit of Brian H. Whitley**

1. My name is Brian H. Whitley. I am the Regulatory Affairs Director for Southern Nuclear Operating Company (SNC). I have been delegated the function of reviewing proprietary information sought to be withheld from public disclosure and am authorized to apply for its withholding on behalf of SNC.
2. I am making this affidavit on personal knowledge, in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations, and in conjunction with SNC's filing on dockets 52-025 and 52-026, Vogtle Electric Generating Plant Units 3 and 4, Supplement to Request for License Amendment and Exemption: Consistency and Clarification Changes to Annex Building, Auxiliary Building and Basemat ITAAC (LAR-17-040S1). I have personal knowledge of the criteria and procedures used by SNC to designate information as a trade secret, privileged or as confidential commercial or financial information.
3. Based on the reason(s) at 10 CFR 2.390(a)(4), this affidavit seeks to withhold from public disclosure Enclosure 7 of SNC letter ND-18-0425 for Vogtle Electric Generating Plant Units 3 and 4, Supplement to Request for License Amendment and Exemption: Consistency and Clarification Changes to Annex Building, Auxiliary Building and Basemat ITAAC (LAR-17-040S1).
4. The following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
  - a. The information sought to be withheld from public disclosure has been held in confidence by SNC and Westinghouse Electric Company.



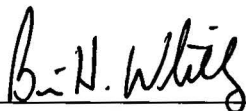
ND-18-0425

Enclosure 9

Affidavit from Southern Nuclear Operating Company for Withholding Under 10 CFR 2.390 (LAR-17-040S1)

- b. The information is of a type customarily held in confidence by SNC and Westinghouse Electric Company and not customarily disclosed to the public.
  - c. The release of the information might result in the loss of an existing or potential competitive advantage to SNC and/or Westinghouse Electric Company.
  - d. Other reasons identified in Enclosure 10 of SNC letter ND-18-0425 for Vogtle Electric Generating Plant Units 3 and 4, Supplement to Request for License Amendment and Exemption: Consistency and Clarification Changes to Annex Building, Auxiliary Building and Basemat ITAAC (LAR-17-040S1), and those reasons are incorporated here by reference.
5. Additionally, release of the information may harm SNC because SNC has a contractual relationship with the Westinghouse Electric Company regarding proprietary information. SNC is contractually obligated to seek confidential and proprietary treatment of the information.
6. The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.
7. To the best of my knowledge and belief, the information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method.

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



\_\_\_\_\_  
Brian H. Whitley

Executed on 4/6/18  
Date

**Southern Nuclear Operating Company**

**ND-18-0425**

**Enclosure 10**

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

**Westinghouse Authorization Letter CAW-18-4721, Affidavit, Proprietary  
Information Notice and Copyright Notice**

(Enclosure 10 consists of 7 pages, excluding this cover page.)



Westinghouse Electric Company  
1000 Westinghouse Drive  
Cranberry Township, Pennsylvania 16066  
USA

U.S. Nuclear Regulatory Commission  
Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852

Direct tel: (412) 374-4372  
Direct fax: (724) 940-8505  
e-mail: monohajs@westinghouse.com

CAW-18-4721

April 3, 2018

APPLICATION FOR WITHHOLDING PROPRIETARY  
INFORMATION FROM PUBLIC DISCLOSURE

Subject: ND-18-0425 "Supplement to Request for License Amendment and Exemption: Consistency and Clarification Changes to Annex Building, Auxiliary Building and Basemat ITAAC (LAR-17-040S1)" (Proprietary)

The Application for Withholding Proprietary Information from Public Disclosure is submitted by Westinghouse Electric Company LLC ("Westinghouse"), pursuant to the provisions of paragraph (b)(1) of Section 2.390 of the Nuclear Regulatory Commission's ("Commission's") regulations. It contains commercial strategic information proprietary to Westinghouse and customarily held in confidence.

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-18-4721 signed by the owner of the proprietary information, Westinghouse. The Affidavit, which accompanies this letter, sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of 10 CFR Section 2.390 of the Commission's regulations.

Accordingly, this letter authorizes the utilization of the accompanying Affidavit by Southern Nuclear Operating Company.

Correspondence with respect to the proprietary aspects of the Application for Withholding or the Westinghouse Affidavit should reference CAW-18-4721, and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 2 Suite 259, Cranberry Township, Pennsylvania 16066.

A handwritten signature in black ink that reads "Jill S. Monahan".

Jill S. Monahan, Manager  
Licensing Inspections and Special Programs

AFFIDAVIT

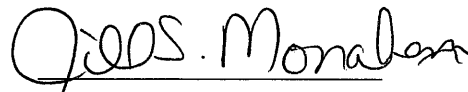
COMMONWEALTH OF PENNSYLVANIA:

ss

COUNTY OF BUTLER:

I, Jill S. Monahan, am authorized to execute this Affidavit on behalf of Westinghouse Electric Company LLC ("Westinghouse") and declare that the averments of fact set forth in this Affidavit are true and correct to the best of my knowledge, information, and belief.

Executed on: 4/13/2018



Jill S. Monahan, Manager  
Licensing Inspections and Special Programs

- (1) I am Manager, Licensing Inspections and Special Programs, Westinghouse Electric Company LLC (“Westinghouse”), and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing and rule making proceedings, and am authorized to apply for its withholding on behalf of Westinghouse.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Nuclear Regulatory Commission’s (“Commission’s”) regulations and in conjunction with the Westinghouse Application for Withholding Proprietary Information from Public Disclosure accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.390 of the Commission’s regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
  - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.
  - (ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute Westinghouse policy and provide the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- (a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of

Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.

- (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage (e.g., by optimization or improved marketability).
  - (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
  - (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
  - (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
  - (f) It contains patentable ideas, for which patent protection may be desirable.
- (iii) There are sound policy reasons behind the Westinghouse system which include the following:
- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.
  - (b) It is information that is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.
  - (c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.

- (d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.
  - (e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition of those countries.
  - (f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- (iv) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, is to be received in confidence by the Commission.
- (v) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
- (vi) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in ND-18-0425 “Supplement to Request for License Amendment and Exemption: Consistency and Clarification Changes to Annex Building, Auxiliary Building and Basemat ITAAC (LAR-17-040S1)” (Proprietary), for submittal to the Commission, being transmitted by Southern Nuclear Operating Company letter. The proprietary information as submitted by Westinghouse is that associated with the Southern Nuclear Operating Company License Amendment Request in ND-17-1811 (WEC LAR-159, Southern LAR-17-040), and may be used only for that purpose.

- (a) This information is part of that which will enable Westinghouse to:
  - (i) Manufacture and deliver products to utilities based on proprietary designs.
- (b) Further, this information has substantial commercial value as follows:
  - (i) Westinghouse plans to sell the use of similar information to its customers for the purpose of licensing of new nuclear power stations.
  - (ii) Westinghouse can sell support and defense of industry guidelines and acceptance criteria for plant-specific applications.
  - (iii) The information requested to be withheld reveals the distinguishing aspects of a methodology which was developed by Westinghouse.

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar technical evaluation justifications and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the technology described in part by the information is the result of applying the results of many years of experience in an intensive Westinghouse effort and the expenditure of a considerable sum of money.

In order for competitors of Westinghouse to duplicate this information, similar technical programs would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended.

Further the deponent sayeth not.



## **PROPRIETARY INFORMATION NOTICE**

Transmitted herewith are proprietary and non-proprietary versions of a document, furnished to the NRC in connection with requests for generic and/or plant-specific review and approval.

In order to conform to the requirements of 10 CFR 2.390 of the Commission's regulations concerning the protection of proprietary information so submitted to the NRC, the information which is proprietary in the proprietary versions is contained within brackets, and where the proprietary information has been deleted in the non-proprietary versions, only the brackets remain (the information that was contained within the brackets in the proprietary versions having been deleted). The justification for claiming the information so designated as proprietary is indicated in both versions by means of lower case letters (a) through (f) located as a superscript immediately following the brackets enclosing each item of information being identified as proprietary or in the margin opposite such information. These lower case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (4)(ii)(a) through (4)(ii)(f) of the Affidavit accompanying this transmittal pursuant to 10 CFR 2.390(b)(1).

## **COPYRIGHT NOTICE**

The reports transmitted herewith each bear a Westinghouse copyright notice. The NRC is permitted to make the number of copies of the information contained in these reports which are necessary for its internal use in connection with generic and plant-specific reviews and approvals as well as the issuance, denial, amendment, transfer, renewal, modification, suspension, revocation, or violation of a license, permit, order, or regulation subject to the requirements of 10 CFR 2.390 regarding restrictions on public disclosure to the extent such information has been identified as proprietary by Westinghouse, copyright protection notwithstanding. With respect to the non-proprietary versions of these reports, the NRC is permitted to make the number of copies beyond those necessary for its internal use which are necessary in order to have one copy available for public viewing in the appropriate docket files in the public document room in Washington, DC and in local public document rooms as may be required by NRC regulations if the number of copies submitted is insufficient for this purpose. Copies made by the NRC must include the copyright notice in all instances and the proprietary notice if the original was identified as proprietary.