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Southern Nuclear
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December 11, 2017

Docket Nos.: 52-025
52-026

ND-17-1996
10 CFR 2.390

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
Transmittal of Proprietary Presentation Slides for NRC Public Meeting Held on
November 30, 2017
Regarding License Amendment Request and Exemption for: Containment Pressure Analysis

Ladies and Gentlemen:

On November 30, 2017, an NRC public meeting was held with Southern Nuclear Operating Company (SNC) and Westinghouse Electric Company (WEC) to exchange technical information regarding changes to the containment pressure analysis for Vogtle Electric Generating Plant (VEGP) Units 3 and 4. The purpose of this letter is to transmit the proprietary presentation material that was used to facilitate the November 30, 2017 presubmittal meeting along with the non-proprietary version of the presentation. The non-proprietary presentation material for this meeting was previously provided to the NRC by email dated November 17, 2017.

In the meeting SNC stated that references to previous correspondence on this topic would also be provided in this letter. Below is the correspondence to date:

- WEC letter DCP_NRC_003272, "Submittal of Presentations to Support the AP1000™ Containment, Ventilation, and Main Control Room Topics to be held on July 23, 2014," dated July 15, 2014 (ML14199A460)
- SNC letter ND-14-1282, "Schedule of Technical Documentation to Support Future License Amendment Request for Containment Reanalysis," dated August 28, 2014 (ML14241A271)
- SNC letter ND-17-0893, "Schedule of Technical Documentation to Support Future License Amendment Request for Containment Reanalysis Update (WEC LAR-79)" dated May 24, 2017 (ML17144A400).

Enclosure 1 provides the slide presentation titled, "Containment Pressure Analysis – Closed Meeting (Non-Proprietary)."

Enclosure 2 provides the slide presentation titled, "Containment Pressure Analysis – Closed Meeting (Proprietary) (**Withheld Information**). This presentation contains material

Enclosure 2 provides the slide presentation titled, "Containment Pressure Analysis – Closed Meeting (Proprietary) **(Withheld Information)**." **This presentation contains material identified as security-related information and Westinghouse Proprietary Class 2, and accordingly is requested to be withheld from public disclosure under 10 CFR 2.390.**

Enclosure 3 provides an affidavit from SNC supporting withholding the Proprietary information under 10 CFR 2.390.

Enclosure 4 is Westinghouse's Proprietary Information Notice, Copyright Notice and CAW-17-4654, 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 10 CFR 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.

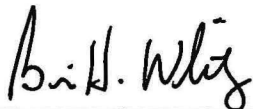
Correspondence with respect to the proprietary aspects of the items listed above or the supporting Westinghouse affidavit should reference CAW-17-4654 and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 3 Suite 310, 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

This letter does not contain any NRC commitments.

Should you have any questions, please contact Ms. Amy Chamberlain at (205) 992-6361.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 11th of December, 2017.

Respectfully submitted,



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

- Enclosures:
1. Presentation Material: Containment Pressure Analysis – Closed Meeting (Non-Proprietary)
 2. Presentation Material: Containment Pressure Analysis – Closed Meeting (Proprietary) **(Withheld Information)**
 3. Affidavit from Southern Nuclear Operating Company for Withholding Under 10 CFR 2.390
 4. Westinghouse Application for Withholding Proprietary Information from Public Disclosure CAW-17-4654, accompanying Affidavit, Proprietary Information Notice, and Copyright Notice

cc:

Southern Nuclear Operating Company / Georgia Power Company

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ND-17-1996

Enclosure 1

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Presentation Material:

Containment Pressure Analysis – Closed Meeting (Non-Proprietary)

(Enclosure 1 consist of 37 pages, plus this cover page)



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VEGP LAR-17-043 (WEC LAR-079): Containment Pressure Analysis

November 30, 2017

Meeting Purpose and Agenda

Meeting Purpose

- Pre-submittal meeting to discuss the proposed changes in VEGP LAR-17-043 (WEC LAR-079), Containment Analyses
- Inform Staff of LAR Scope and gain feedback

Agenda

- Summary of Changes
- Background Information
- Discussion of proposed changes



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Summary of Changes

Proposed Changes

1. WGOTHIC Evaluation Model (EM) Updates
2. WGOTHIC WCAP-15846 Updates
3. Mass and Energy (M&E) Releases Updates
4. Containment Integrity Analyses Updates
5. Passive Containment Cooling System (PCS) ITAAC Updates
6. Containment Vessel (CV) Heat Transfer Elevation and Changes Related to Inorganic Zinc Application
7. Updates to Peak Clad Temperature (PCT) for Loss of Coolant Accident (LOCA) Analyses



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Background Information

- The current licensing basis (CLB) containment integrity analysis is described in UFSAR Section 6.2
- The CLB analyses are based on the design configuration at the time of the amended AP1000 design certification (DCD Rev. 19)
- Accumulated design changes within containment have necessitated recalculation of inputs to WGOTHIC EM and revision of the WGOTHIC methodology for the AP1000 plant
- The LAR will be used to incorporate updated containment integrity analyses and methodological updates into the CLB



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Background Information (cont.)

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Change 1

WGOTHIC EM Updates



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Change 1 – WGOTHIC EM Updates

- Accumulated design changes within containment have necessitated recalculation of geometry input to the WGOTHIC EM used for containment integrity analyses
- The WGOTHIC EM has been updated to reflect the recalculation and incorporation of the following:
 - Passive Containment Heat Sinks
 - Control Volumes
 - Flow Paths



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Change 1 – WGOTHIC EM Updates (cont.)

Updates to Passive Containment Heat Sinks

- Nominal dimensions from design drawings have been used to calculate metal volumes and surface areas for heat sink inputs
- Total metal volume has increased by approximately $[J^{a,c}]$ from current model
- Despite increase in total metal volume, conservatism is maintained:
 - More than $[J^{a,c}]$ of metal is conservatively “turned off” for heat transfer in WGOTHIC
 - $[J^{a,c}]$ air gap is assumed between steel and concrete
 - Heat transfer to horizontal, upward-facing surfaces is not credited
 - Condensation/convection on heat sinks in the dead-ended compartments below the operating deck are not credited after the blowdown period



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Change 1 – WGOTHIC EM Updates (cont.)

- Tier 2* UFSAR Table 6.2.1.1-10 updated to summarize the range of required total volume (min and max) of metal heat sinks inside containment

Table 6.2.1.1-10	
<i>[Plant Requirements for Metal Heat Sinks Inside Containment] *</i>	
<i>Region</i>	<i>Metal Volume (ft³) (minimum – maximum)</i>
<i>Above the operating deck</i>	4973 - 7279
<i>Inside SG/Pressurizer compartments</i>	1002 - 1677
<i>Below the operating deck</i>	5246 – 8255
<i>Total</i>	11,811 ⁽³⁾ - 17,211
<i>Notes:</i>	
1. Does not include the containment vessel.	
2. Only includes structures and equipment that are typically less than or equal to containment ambient temperature.	
3. The total minimum volume includes an additional 590 ft ³ of metal inside containment.	



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Change 1 – WGOTHIC EM Updates (cont.)

Updates to Control Volumes

- The recalculated containment free volume remains 2.06E06 ft³; consistent with current UFSAR model
 - Negligible difference of [$\text{ }^{a,c}$]
- Changes include renodalization of the annulus downcomer and riser from torus control volumes to quadrant-specific control volumes and addition of the pressurizer compartment
- No direct changes to the CLB due to recalculation of control volumes



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Change 1 – WGOTHIC EM Updates (cont.)

Updates to Flow Paths

- WGOTHIC uses flow paths to connect the control volumes previously discussed
- Updates to the WGOTHIC flow paths from the CLB are analysis as follows:
 - Flow paths inside containment constrained by physical boundaries are recalculated based on design drawings
 - Flow paths outside containment and those linked to boundary conditions are calculated directly by WGOTHIC; these have not changed
- No direct changes to the CLB due to recalculation of flow paths



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Change 2

WGOTHIC WCAP-15846 Updates



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Change 2 - WGOTHIC WCAP-15846 Updates

- Current containment integrity methodology is defined in WCAP-15846, Rev. 1 with updates from the enhanced shield building design in APP-GW-GLR-096, Rev.3
 - WCAP-15846 is IBR in UFSAR Table 1.6-1
- WCAP-15846 Revisions:
 - Rev. 2 and 3 include only errata pages with updated PCS flowrates
 - Rev. 4 has majority of changes (next slide)
 - Rev. 5 has changes for PCS water stripping due to air baffle supports
- WCAP-15846, Rev. 5 includes all changes from previous revisions and reflects the methodology for the WGOTHIC EM used in the new analyses



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Change 2 - WGOTHIC WCAP-15846 Updates (cont.)

- WCAP updates are summarized in its Record of Revisions:
 - Incorporated changes already in APP-GW-GLR-096, Rev. 3
 - Updated the heat sinks, flow paths and control volume nodalization in the WGOTHIC evaluation model
 - Removed specific input values in the evaluation model; clarified basis for calculating the input values
 - Updated WGOTHIC code information
 - Evaporation-limited PCS flow calculations are a new option that reduces post-processing/iterations that were previously needed
 - Alternate approach to accounting for 2-D conduction between wet and dry stripes on the containment shell for long-term transients
 - Editorial updates for clarification, such as:
 - All locations inside containment are examined to determine maximum vapor temperature (rather than break location)



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Change 2 - WGOTHIC WCAP-15846 Updates (cont.)

- Update to the methodology document necessitates changes to various CLB sections to reflect the new WCAP revision; now Revision 5 (i.e., UFSAR Table 1.6-1, Subsections 6.2.7, 6A.5)
- Due to proprietary nature of the WCAP, the detailed description and technical evaluation of changes between Revisions 1 through 5 are provided as a standalone attachment to the LAR submittal



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Change 3

Mass & Energy (M&E) Release Updates



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Change 3 - M&E Release Updates

LOCA M&E Release Updates

- M&E releases have been recalculated using the approved methodology described in WCAP-10325-P-A and WCAP-15846 for:
 - Blowdown phase DEHLG
 - Blowdown phase DECLG
 - Long-term release for DECLG
- DECLG case is limiting for peak pressure and long-term containment response
- UFSAR updates are reflected in markups to Subsection 6.2.1.3.2, Tables 6.2.1.3-9 and 6.2.1.3-10, and Figures 6.2.1.3-1 through 6.2.1.3-4



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Change 3 - M&E Release Updates (cont.)

- Update is made to UFSAR Subsection 6.2.1.3.2.2 for “Description of Blowdown Model”
 - The SATAN-VI code input contains a generic assumption of a constant overall heat transfer coefficient of []^{a,c}
 - This assumption causes an unrealistic spike in the break compartment temperature towards end of blowdown
 - DEHLG LOCA SATAN run is modified to use the reduced, natural convection heat transfer coefficient []^{a,c} when the quality of the vessel is greater than []^{a,c} steam
 - This is more representative of superheated releases at the end of the DEHLG blowdown



Change 3 - M&E Release Updates (cont.)

MSLB M&E Release Updates

- MSLB M&E releases are discussed in UFSAR Subsection 6.2.1.4 and have been recalculated
- Calculation documents analysis of steam line break (SLB) double-ended rupture (DER) cases at various power levels:

0%	30%
70%	101%
- Updates to the CLB supporting the changes to MSLB M&Es are reflected in markups to UFSAR Subsection 6.2.1.4 and Tables 6.2.1.4-2 through 6.2.1.4-4



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Change 3 - M&E Release Updates (cont.)

- Additional penalty against the SLB analysis is taken to account for metal energy transferred to the fluid in the steam generators as the fluid temperature drops below the metal temperature
 - Includes only steam generator metal in contact with secondary side fluid



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Change 4

Containment Integrity Analyses Updates



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Change 4 - Containment Integrity Analyses Updates

Updates to LOCA Peak Pressure Analysis

- LOCA containment integrity analysis updated to incorporate Changes 1 through 3
- Calculated peak containment pressure (TS P_a) decreased from 58.3 psig to 58.1 psig for DECLG
- Calculated peak containment vapor temperature decreased from 411.3 °F to 385.8 °F for DEHLG
- GDC 38 requires containment pressure be reduced below half of design pressure (29.5 psig) within 24 hours
 - Updated analyses confirm that DECLG pressure is reduced below 27 psig after 24 hours



Updated LOCA peak pressure analysis remains bounded by containment design pressure

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Change 4 - Containment Integrity Analyses Updates (cont.)

5.5.8

Containment Leakage Rate Testing Program

- a. A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program, dated September 1995," as modified by approved exceptions.
- b. The calculated peak containment internal pressure for the design basis loss of coolant accident, P_a , is ~~58.3~~ psig. The containment design pressure is 59 psig.

58.1

**Proposed markup to TS Administrative
Control 5.5.8**



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Change 4 - Containment Integrity Analyses Updates (cont.)

MSLB Peak Pressure Analysis Updates

- MSLB containment integrity analysis updated to incorporate Changes 1 through 3
- Peak containment pressure decreased from 58.2 psig to 57.2 psig for DER initiated from 30% power
- Peak containment vapor temperature increased from 374.7°F to 383.6°F for DER initiated from 101% power
- Updates to the CLB due to MSLB analyses updates are reflected in markups to UFSAR Subsection 6.2.1.1.3, Tables 6.2.1.1-1 and 6.2.1.1-3, and Figures 6.2.1.1-1 and 6.2.1.1-2



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Change 4 - Containment Integrity Analyses Updates (cont.)

Table 6.2.1.1-1
Summary of Calculated Pressures and Temperatures

Vapor

Peak Containment

Break	Peak Pressure (psig)	Available ¹ Margin (psi)	Peak Temperature (°F)
Double-ended hot leg guillotine	50.4 49.8	8.8 9.2	444.3 385.8
Double-ended cold leg guillotine	58.3 58.1	0.7 0.9	296.7 357.8
Full main steam line DER, 30% power, MSIV failure	58.2 57.2	0.8 1.8	373.2 381.8
Full main steam line DER, 101% power, MSIV failure	64.2 54.4	4.8 4.6	374.7 383.6

Note:

1. Design Pressure is 50 psig

Proposed markups to UFSAR Table
6.2.1.1-1



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Change 5

Passive Containment Cooling System (PCS) ITAAC Updates



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Change 5 - PCS ITAAC Updates

- Supplemental CLB changes proposed to capture lessons learned from preoperational testing conducted in China
- ITAAC acceptance criterion is proposed to allow for analysis showing as-tested performance of the PCS is greater than that assumed in peak pressure analyses
 - Plant remains safe
- Updates necessary to the following:
 - ITAAC 2.2.03.7.a.i
 - ITAAC 2.2.03.7.a.ii
 - UFSAR Subsection 6.2.2.4.2



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Change 5 - PCS ITAAC Updates (cont.)

Table 2.2.2-3 (cont.)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7.a) The PCS delivers water from the PCCWST to the outside, top of the containment vessel.	i) Testing will be performed to measure the PCCWST delivery rate from each one of the three parallel flow paths.	i) When tested, each one of the three flow paths delivers water at greater than or equal to: - 469.1 gpm at a PCCWST water level of 27.4 ft + 0.2, - 0.0 ft above the tank floor - 226.6 gpm when the PCCWST water level uncovers the first (i.e. tallest) standpipe - 176.3 gpm when the PCCWST water level uncovers the second tallest standpipe - 144.2 gpm when the PCCWST water level uncovers the third tallest standpipe
or a report exists and concludes that the as-measured flow rates bound the 72 hour containment peak pressure and temperature results.	ii) Testing and or analysis will be performed to demonstrate the PCCWST inventory provides 72 hours of adequate water flow.	ii) When tested and/or analyzed with all flow paths delivering and an initial water level at 27.4 + 0.2, - 0.00 ft, the PCCWST water inventory provides greater than or equal to 72 hours of flow, and the flow rate at 72 hours is greater than or equal to 100.7 gpm.
or a report exists and concludes that the as-measured flow rates bound the 72 hour containment peak pressure and temperature results.	iii) The elevations of the standpipes above the tank floor are:	iii) The elevations of the standpipes above the tank floor are: - 16.8 ft ± 0.2 ft - 20.3 ft ± 0.2 ft - 24.1 ft ± 0.2 ft

Proposed markups ITAAC
2.2.03.7.a.i & 2.2.03.7.a.ii



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Change 6

Containment Vessel (CV) Heat Transfer Elevation and Changes Related to Inorganic Zinc Application



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Change 6 – CV Heat Transfer ITAAC

- ITAAC 2.2.02.07.b.iii acceptance criterion indicates the CV interior surface is coated with an inorganic zinc (IOZ) coating 7' above the operating deck
 - Implies CV surface between the operating deck up to 7' above the deck is not coated with IOZ
- ITAAC 3.3.00.02.g states that the CV provides a heat transfer surface for containment greater than 7' above the operating deck
 - Implies CV surface between the operating deck up to 7' above the deck does not provide a credited heat transfer surface
- This CV portion is coated with IOZ and is credited as transferring heat from inside cont. to the atmosphere, consistent with NRC-approved methodology
- Clarification to ITAAC and UFSAR text is proposed to prevent misinterpretation



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Change 6 – CV Heat Transfer ITAAC (cont.)

Proposed markups to
ITAAC 2.2.02.07.b.iii

Table 2.2.2-3 (cont.)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7.b) The PCS wets the outside surface of the containment vessel. The inside and the outside of the containment vessel above the operating deck are coated with an inorganic zinc material.	i) Testing will be performed to measure the outside wetted surface of the containment vessel with one of the three parallel flow paths delivering water to the top of the containment vessel.	i) A report exists and concludes that when the water in the PCCWST uncovers the standpipes at the following levels, the water delivered by one of the three parallel flow paths to the containment shell provides coverage measured at the spring line that is equal to or greater than the stated coverages. <ul style="list-style-type: none">- 24.1 ± 0.2 ft above the tank floor; at least 90% of the perimeter is wetted.- 20.3 ± 0.2 ft above the tank floor; at least 72.9% of the perimeter is wetted.- 16.8 ± 0.2 ft above the tank floor; at least 59.6% of the perimeter is wetted.
	ii) Inspection of the containment vessel exterior coating will be conducted.	ii) A report exists and concludes that the containment vessel exterior surface is coated with an inorganic zinc coating above elevation 135' - 3".
	iii) Inspection of the containment vessel interior coating will be conducted.	iii) A report exists and concludes that the containment vessel interior surface is coated with an inorganic zinc coating above 7' above the operating deck.

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Change 6 – CV Heat Transfer ITAAC (cont.)

Proposed markups to
ITAAC 3.3.00.02.g

Table 3.3-6 (cont.)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
		ii.f) A report exists that concludes that the as-built concrete thicknesses of the turbine building sections conform to the building sections defined in Table 3.3-1.
2.b) Site grade level is located relative to floor elevation 100'-0" per Table 3.3-5.	Inspection of the as-built site grade will be conducted.	Site grade is consistent with design plant grade within the dimension defined on Table 3.3-5.
2.c) The containment and its penetrations are designed and constructed to ASME Code Section III, Class MC.(i)	See Tier 1 Material, Table 2.2.1-3, Items 2a, 2b, 3a, and 3b. .	See Tier 1 Material, Table 2.2.1-3, Items 2a, 2b, 3a, and 3b. .
2.d) The containment and its penetrations retain their pressure boundary integrity associated with the design pressure.	See Tier 1 Material, Table 2.2.1-3, Items 4a and 4b..	See Tier 1 Material, Table 2.2.1-3, Items 4a and 4b.
2.e) The containment and its penetrations maintain the containment leakage rate less than the maximum allowable leakage rate associated with the peak containment pressure for the design basis accident.	See Tier 1 Material, Table 2.2.1-3, Items 4a, 4b, and 7.	See Tier 1 Material, Table 2.2.1-3, Items 4a, 4b, and 7.
2.f) The key dimensions of nuclear island structures are defined on Table 3.3-5.	An inspection will be performed of the as-built configuration of the nuclear island structures.	A report exists and concludes that the key dimensions of the as-built nuclear island structures are consistent with the dimensions defined on Table 3.3-5.
2.g) The containment vessel greater than 7 feet above the operating deck provides a heat transfer surface. A free volume exists inside the containment shell above the operating deck.	The maximum containment vessel inside height from the operating deck is measured and the inner radius below the spring line is measured at two orthogonal radial directions at one elevation.	The containment vessel maximum inside height from the operating deck is 146'-7" (with tolerance of +12" , -6"), and the inside diameter is 130 feet nominal (with tolerance of +12" , -6").

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Change 7

Updates to Peak Clad Temperature (PCT) for LOCA Analyses



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Change 7 – Updates to PCT for LOCA Analyses

LOCA PCT Impacts

- There are no direct impacts to PCT for LBLOCA or SBLOCA as a result of the updated containment integrity analyses
- However, outstanding 10 CFR 50.46 PCT rackups for LBLOCA & SBLOCA rebaseline efforts are included in LAR as they are tracked against containment integrity analyses updates
 - WGOTHIC-calculated minimum backpressure is an input to LOCA analyses



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Change 7 – Updates to PCT for LOCA Analyses (cont.)

PCT Impacts from VEGP LAR-17-043			
LBLOCA		SBLOCA	
AOR PCT [°F]	1936	AOR PCT [°F]	663.5
50.46 Annual Report 2016 PCT [°F]	1970	50.46 Annual Report 2016 PCT [°F]	708.5

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*Note: PCT value does not include VEGP LAR-17-009 (WEC LAR-133) impact of +144 °F



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LAR Submittal Format

- Large submittal package
- Due to proprietary nature of the WGOTHIC WCAP-15846 methodology, LAR package includes 4 Attachments supporting Change 2
 1. Technical evaluation including tracked-changes of WCAP-15846 from Revisions 1 through 5 (Proprietary)
 2. Technical evaluation including tracked-changes of WCAP-15846 from Revisions 1 through 5 (Non-Proprietary)
 3. WCAP-15846, Revision 5 (Proprietary)
 4. WCAP-15862, Revision 5 (Non-Proprietary)



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 Southern Nuclear

 Georgia Power

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Southern Nuclear Operating Company

ND-17-1996

Enclosure 3

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

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

(Enclosure 3 consist of two pages, plus this cover page.)

Affidavit of Brian H. Whitley

1. My name is Brian H. Whitley. I am the Nuclear Development 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, APP-GW-GLY-140, Revision 0, "NRC Pre-Submittal Meeting Presentation of WEC LAR-079: Containment Pressure Analysis – Proprietary." 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 2 of SNC letter ND-17-1996 for Vogtle Electric Generating Plant Units 3 and 4, Transmittal of Proprietary Presentation Slides for NRC Public Meeting Held on November 30, 2017 Regarding License Amendment Request and Exemption for: Containment Pressure Analysis.
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.
 - b. The information is of a type customarily held in confidence by SNC and Westinghouse Electric Company and not customarily disclosed to the public.

ND-17-1996

Enclosure 3

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

- 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 2 of SNC letter ND-17-1996 for Vogtle Electric Generating Plant Units 3 and 4, APP-GW-GLY-140, Revision 0, "NRC Pre-Submittal Meeting Presentation of WEC LAR-079: Containment Pressure Analysis – Proprietary" 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 12/11/17
Brian H. Whitley Date

Southern Nuclear Operating Company

ND-17-1996

Enclosure 4

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

**Westinghouse Application for
Withholding Proprietary Information from Public Disclosure CAW-17-4654,
accompanying Affidavit, Proprietary Information Notice, and Copyright Notice**

(Enclosure 4 consist of 8 pages, plus this cover page.)

ENCLOSURE 1 to CAW-17-4654

AFFIDAVIT

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CAW-17-4654

November 20, 2017

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF BUTLER:

I, Paul A. Russ, 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.



Paul A. Russ, Director

Licensing and Regulatory Affairs – Americas

Date: 11/20/17

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- (1) I am Director, Licensing and Regulatory Affairs – Americas, 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

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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.

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- (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, it 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 APP-GW-GLY-140, Revision 0, "NRC Pre-Submittal Meeting Presentation of WEC LAR-079: Containment Pressure Analysis – Proprietary", for a meeting to be held on November 30, 2017, 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 NRC pre-submittal meeting in support of WEC LAR-079, 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.

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- (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.

ENCLOSURE 2 to CAW-17-4654

PROPRIETARY INFORMATION NOTICE and COPYRIGHT NOTICE

CAW-17-4654
November 20, 2017

PROPRIETARY INFORMATION NOTICE

Transmitted herewith are proprietary and/or non-proprietary versions of documents 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).

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