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

SOUTHERN COMPANY

Docket Nos.: 52-025
52-026

ND-15-0752
10 CFR 50.90
10 CFR 52.63

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

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Request for License Amendment and Exemption:
Diverse Actuation System (DAS) Cabinet Changes (LAR-15-005)

Ladies and Gentlemen:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC), the licensee for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, requests an amendment to Combined License (COL) Numbers NPF-91 and NPF-92, for VEGP Units 3 and 4, respectively. The requested amendment requires changes to the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the incorporated plant-specific Design Control Document (PS-DCD) Tier 2 information and involves related changes to COL Appendix C information, with corresponding changes to the associated plant-specific Tier 1 information. 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 is also requested for the plant-specific DCD Tier 1 material departures.

The proposed departures consist of changes to COL Appendix C (and plant-specific Tier 1) tables, UFSAR text and tables, and information incorporated by reference into the UFSAR related to the reconfiguration and relocation of the diverse actuation system (DAS) cabinets.

Enclosure 1 provides the description, technical evaluation, regulatory evaluation (including the Significant Hazards Consideration determination), and environmental considerations for the proposed changes in the License Amendment Request (LAR).

Enclosure 2 provides the background and supporting basis for the requested exemption.

Enclosure 3 identifies the requested changes and provides markups depicting the requested changes to the plant-specific Tier 1 and UFSAR text and tables. The information in Enclosure 3 may be made available for disclosure to the public.

Enclosure 4 provides the redacted version of the UFSAR markups provided in Enclosure 3. The marked up text in Enclosure 4 includes information that is considered to be proprietary; therefore, Enclosure 4 is requested to be withheld from disclosure to the public.

An affidavit from SNC supporting withholding under 10 CFR 2.390 is provided as Enclosure 5. Enclosure 6 is Westinghouse's Proprietary Information Notice, Copyright Notice and CAW-15-4130, 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-15-4130 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 Wesley A. Sparkman at the contact information within this letter.

This letter contains no regulatory commitments.

SNC requests staff approval of this license amendment and exemption by [DATE], to support installation of the DAS control cabinets. Delayed approval of this licensing request could result in delay of the associated construction activity and subsequent dependent construction activities. SNC expects to implement the proposed amendment (through incorporation into the licensing basis documents; e.g., the UFSAR) within 30 days of the approval of the requested changes.

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

Should you have any questions, please contact Mr. Jason Redd at (205) 992-6435.

(Affirmation and signature provided on the following page.)

Mr. Brian H. Whitley states that: he is the Regulatory Affairs Director of Southern Nuclear Operating Company; he 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/ljs

Sworn to and subscribed before me this _____ day of _____, 2015

Notary Public: _____

My commission expires: _____

Enclosures:
1) Request for License Amendment, Diverse Actuation System (DAS) Cabinet Changes (LAR-15-005)
2) Exemption Request, Diverse Actuation System (DAS) Cabinet Changes (LAR-15-005)
3) Proposed Changes to the Updated Final Safety Analysis Report (UFSAR) (LAR-15-005) (Publicly Available Information)
4) Proposed Changes to the Updated Final Safety Analysis Report (UFSAR) (LAR-15-005) **(Withheld Information)**
5) Affidavit from Southern Nuclear Operating Company for Withholding Under 10 CFR 2.390
6) Westinghouse Authorization Letter CAW-15-4130, Affidavit, Proprietary Information Notice and Copyright Notice

cc: To be added by SNC Administrative Assistant for final submittal

Multiple (6) Enclosures; Enclosure 4 contains (SUNSI) Proprietary information

Southern Nuclear Operating Company

Vogtle Electric Generating Plant Units 3 and 4

ND-15-0752

Enclosure 1

Request for License Amendment

Diverse Actuation System (DAS) Cabinet Changes

(LAR-15-005)

(15 pages, including this cover page)

Table of Contents

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) hereby requests an amendment to Combined License (COL) Nos. NPF-91 and NPF-92 for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, respectively.

1. SUMMARY DESCRIPTION

The proposed changes revise the licensing basis of the COLs to modify the design of the Diverse Actuation System (DAS) to be consistent with the DAS fire-induced spurious actuation (smart fire) and single point failure criteria. The DAS is proposed to be revised by reconfiguring the signal processing in the two processor cabinets currently located in the Annex Building and relocating the cabinets to the Auxiliary Building. The proposed changes also eliminate the instrument cabinet located in the Auxiliary Building. The two processor cabinets relocated to the Auxiliary Building will each have approximately one half of the hardware and perform half the functions for the DAS. The proposed changes also revise the electrical distribution configuration so that the DAS cabinets will be powered from distribution panels that are backed from separate diesel generators.

The requested amendment requires changes to the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the incorporated plant-specific Design Control Document (PS-DCD) Tier 2 information (as detailed in Section 2), and involves changes to related plant-specific Tier 1 information, with corresponding changes to the associated COL Appendix C information. The proposed changes also include a revision to UFSAR Appendix 7A, Section 7A.3, to capture the changes to supplement Tier 2 WCAP-17184, "AP1000® Diverse Actuation System Planning and Functional Design Summary Technical Report," Revision 2. The revision to the Section 7A.3 reflects the WCAP-17184 changes related to the reconfiguration of the DAS as proposed in the license basis changes. This enclosure requests approval of the license amendment necessary to implement the Tier 2 and COL Appendix C changes. Enclosure 2 requests the exemption necessary to implement the associated changes to the plant-specific Tier 1 information.

2. DETAILED DESCRIPTION

The DAS is a nonsafety-related system that provides a diverse backup to the protection and safety monitoring system (PMS) as follows:

a) The DAS provides an automatic reactor trip on low wide-range steam generator water level, or on low pressurizer water level, or on high hot leg temperature, separate from the PMS.

b) The DAS provides automatic actuation of selected functions, as identified in Tier 1 Table 2.5.1-1, separate from the PMS.

c) The DAS provides manual initiation of reactor trip and selected functions, as identified in Tier 1 Table 2.5.1-2, separate from the PMS. These manual initiation functions are implemented in a manner that bypasses any control room multiplexers; the PMS cabinets; and the signal processing equipment of the DAS.

d) The DAS provides main control room (MCR) displays of selected plant parameters, as identified in Tier 1 Table 2.5.1-3, separate from the PMS.

This backup provided by the DAS reduces the probability of a severe accident resulting from the unlikely coincidence of postulated transients and a postulated common mode failure in the PMS.

The PMS is designed to prevent common mode failures. However, in the low probability case in which a common mode failure does occur, the DAS provides diverse protection.

The primary DAS is located in the MCR and consists of an MCR panel. The current remote DAS is located in a location away from the MCR in the Auxiliary Building and the Annex Building. The current remote DAS design consists of a squib valve control cabinet, an instrument cabinet, and two processor cabinets.

- The squib valve control cabinet provides individual actuation of the squib valves and is only powered when squib valve actuation is necessary.
- The instrument cabinet provides input/output (I/O) and signal processing.
- The processor cabinets provide logic functions to generate actions to plant loads.
- The MCR DAS panel provides operators indication and control capabilities for ESF functions and squib valve operation.

Table 1 identifies the DAS cabinets and the current location for each cabinet.

Cabinet Name	Location
Squib Valve Control Cabinet	Auxiliary Building
Instrument Cabinet	Auxiliary Building
Processor Cabinet 1	Annex Building
Processor Cabinet 2	Annex Building
MCR DAS Panel	Main Control Room

Table 1: Summary of Current DAS Design

Changes are proposed to the current DAS design to be consistent with the DAS fire-induced spurious actuation (smart fire) and single point failure criteria, as addressed below.

<u>Fire-induced Spurious Actuation (Smart Fire) Criterion</u>

The DAS smart fire criterion is documented in the UFSAR as follows:

UFSAR Subsection 9A.3.1.3.1.1, Fire Area 1200 AF 01, states:

"Spurious DAS actuation of squib valves is prevented by the use of a squib valve controller circuit, which requires multiple hot shorts for actuation, physical separation of potential hot short locations, and provisions for operator action to remove power from the fire area. No postulated fire can spread to the hot short locations before the operator can remove power from the fire area."

"Following detection of a fire in the non-Class IE equipment/penetration room, the operators can close the automatic depressurization system stage 4 block valves, then remove DAS actuation power. This operator action will prevent spurious

actuation of squib valves resulting from multiple hot shorts in the non-Class IE equipment/penetration room."

"No fire in this fire area can cause spurious actions which could cause a breach in the reactor coolant boundary or defeat safety-related decay heat removal capability or cause an increase in shutdown reactivity of the reactor."

UFSAR Subsection 9A.2.7.1, Criteria and Assumptions, states:

Availability of Nonsafety-Related Systems

"If offsite power is available, nonsafety-related systems are assumed to continue to operate if a more conservative evaluation would result. Each safe shutdown evaluation is also valid considering the possibility that the operator may initiate safe shutdown using available nonsafety-related systems and that, should the fire later cause those systems to fail, safety-related systems may be automatically or manually actuated to continue the safe shutdown process."

Spurious Actuation of Equipment

"Spurious actuation of squib valves is prevented by the use of a squib valve controller circuit which requires multiple hot shorts for actuation, physical separation of potential hot short locations, and provisions for operator action to remove power from the fire zone. No postulated fire can spread to the hot short locations before the operator can remove power from the fire zone."

The instrument cabinet receives signal information in a security room in the Auxiliary Building and has squib valve ARM and ACTUATE and DAS manual control ENABLE switches located on the panel. This configuration could challenge the smart fire criterion from a single fire in the instrument cabinet possibly causing a combination of short and open circuits that could actuate the squib valves. This arrangement is revised to prevent a single fire from inadvertently actuating the squib valves.

Single Point Failure

The DAS has functional and system design requirements to prevent a spurious actuation of a DAS output. The DAS employs a subsystem to perform internal processing and comparison logic and employs the Advanced Logic System™ (ALS) to implement the internal logic. This includes analog-to-digital conversion of sensor inputs, digital transmission of data between cabinets, and setpoint comparisons. The ALS is not microprocessor-based, but it does employ logic gates and digital technologies.

A review of DAS implementation of the ALS platform has revealed a potential single point failure. The DAS sensors, as identified in Tier 1 Table 2.5.1-3, are currently connected to the instrument cabinet. This cabinet contains one ALS chassis; and the ALS chassis contains the necessary circuits to convert the analog sensor signal to a digital value and then send it via digital link to the DAS processor cabinets. One of the components of the ALS chassis is a core logic board which generates the digital packet signal for transmittal to the processor cabinets and displays. There is only one core logic board per ALS chassis which could possibly malfunction and result in sensor actuation that could lead to inadvertent operation of DAS-operated components. A change to the design is proposed such that a malfunction a single board would not result in inadvertent operation of these components. This change is

not the result of a shortcoming of the ALS platform but of the DAS implementation of the ALS platform.

To address the smart fire and single point failure criteria, changes are proposed to the DAS design to reconfigure and relocate the two DAS processor cabinets from the Annex Building to a security room in the Auxiliary Building and eliminate the instrument cabinet that is currently located in an Auxiliary Building security room. The proposed processor cabinets will be capable of performing the functions of the current instrument and processor cabinets. Each of the reconfigured DAS processor cabinets will contain approximately half the hardware and perform approximately half the functions for the DAS. The revised DAS processor cabinet locations are identified in the proposed change to COL Appendix C (and corresponding plant-specific Tier 1) Table 2.5.1-5.

This proposed configuration to prevent smart fire spurious actuations will allow for physical separation of the squib valve switches and relays. Fire separation requirements for the cabinets will be maintained by locating the squib valve ARM and DAS manual ENABLE hardware in one processor cabinet, and the squib valve ACTUATE hardware in the other processor cabinet.

Each proposed DAS processor cabinet will provide space to house an ALS chassis. Because the DAS requires 2-out-of-2 actuating signals, this configuration will permit half of the input signals to be processed by the ALS subsystem in each of the processor cabinets, and thereby preventing the potential spurious actuation of DAS caused by the failure of one ALS chassis. Each of the proposed processor cabinets is environmentally and seismically qualified, and is qualified for electromagnetic compatibility.

The proposed relocation of the DAS processor cabinets to the Auxiliary Building also requires that the power supplies be provided to the DAS processor cabinets in the Auxiliary Building. With two proposed processor cabinets and two proposed ALS subsystems, each processor cabinet is proposed to be powered by non-Class 1E dc and uninterruptible power supply system (EDS) distribution panels that can be powered from separate diesel generators, thereby preventing the loss of a single diesel generator from causing a total loss of the DAS. Therefore, the tag numbers for the uninterruptable power supply (UPS) distribution panels that will power the DAS are proposed to be revised in COL Appendix C Table 3.7-1 (and corresponding changes to plant-specific Tier 1 Table 3.7-1), and UFSAR (Tier 2) Table 17.4-1 to reflect the replacement of the current power supplies for the processor cabinets in the Annex Building with the power supplies for the relocated cabinets in the Auxiliary Building.

The listing below details the licensing basis changes sought with regard to the DAS processor cabinet modifications, relocation and powering from individual diesel generator-backed distribution panels in the requested amendment. In addition to the changes to UFSAR (Tier 2) information, changes to Tier 2 incorporated by reference (IBR) document WCAP-17184, "AP1000® Diverse Actuation System Planning and Functional Design Summary Technical Report," Revision 2 are made as presented in UFSAR Appendix A, Section 7A.3. The descriptions in UFSAR Appendix 7A, Section 7A.3 present the specific involved proprietary and non-proprietary changes to WCAP-17184 necessary to support:

- Relocating the DAS processor cabinets from the Annex Building to a security room in the Auxiliary Building,

- Eliminating the current instrument cabinet,
- Reconfiguring the DAS processor cabinets to provide signal processing and component actuation in a 2-out-of-2 configuration, and
- Re-powering the processor cabinets from diverse sources backed by separate diesel generators.

The proposed changes to WCAP-17184 presented in UFSAR Appendix 7A, Section 7A.3, are summarized below. Each of these changes is a change to the Tier 2 IBR document WCAP-17184 that involves a change in the DAS cabinet configuration and location as presented in Tier 1 Table 2.5.1-5.

- Section 1.3, Development Phase, Section 1.3.3.3, Implementation Phase is changed to reflect the deletion of the instrumentation cabinet and relocation of the processor cabinets to an Auxiliary Building security room.
- Section 2.5.5.2, DAS Compliance, is revised to indicate that the DAS processor cabinets are relocated from the annex building to the south Auxiliary Building.
- Figure 3-1, DAS Block Diagram, is revised to show the sensor interaction and control logic associated with the revised DAS cabinet configuration.
- Figure 3-2, "An Overview of the DAS Cabinetry Layout," is changed to reflect the deletion of the instrumentation cabinet and relocation of the processor cabinets to an Auxiliary Building security room.
- Section 3.1, System Description, is changed to reflect the deletion of the instrumentation cabinet.
- Section 3.1.1, DAS Processor Cabinets, is revised to provide an overview of the contents of the two DAS processor cabinets and Subsections 3.1.1.1, DAS Processor Cabinet 1, and 3.1.1.2, DAS Processor Cabinet 2, are added to provide details on the respective processor cabinets.
- Section 3.1.2 is renumbered as Section 3.1.1.3, DAS Processor Cabinets, and revised to describe the logic subsystem in each processor cabinet.
- Section 3.1.4 is renumbered as Section 3.1.3, DAS Manual Actuation Controls, and revised to provide details on the Remote DAS station on Processor Cabinets 1 and 2, as opposed to actuation from the singular instrumentation cabinet.
- Section 3.1.5 is renumbered as Section 3.1.3.1, DAS MCR Manual Actuation Switches, and revised to delete the statement addressing the DAS Instrumentation Cabinet.
- Section 3.1.6 is renumbered as Section 3.1.3.2 and revised to provide details of the switch that provides control power for system-level control of the DAS-controlled squib valves in the remote DAS.
- Section 3.1.3.4 is added to provide details on the remote actuation switches located in the remote DAS.
- Section 3.1.3.5 is added to provide details on providing control power to the Processor Cabinet 1 and 2 DAS switches.

- Section 3.1.8 is renumbered as Section 3.1.4, DAS Process Indicating Displays, and revised to provide the description of the plant process signal receipt via serial data communication data links from Processor Cabinet 1, describes the process indicating displays are powered from the Processor Cabinet 1 DC power supplies.
- Section 3.2.1, Cabinet Location Justification, is revised to provide the rationale for locating Processor Cabinet 1, Processor Cabinet 2, and the Squib Valve Controller Cabinet in Room 12554 of the Auxiliary Building on elevation 135'-3" of the Auxiliary Building.
- Section 3.2.2, Independence from Protection System Justification, is revised to discuss that the DAS is externally powered from two non-Class 1E power feeds and contains independent power supplies. The external DAS non-Class 1E power is battery-backed from EDS and each feed is from a different diesel generator.

WCAP-17184 (Revision 2) would continue to be the licensed revision of the WCAPs upon the approval of this LAR. Appendix 7A, Section 7A.3 would be used as a supplement to this WCAP, as indicated in the UFSAR markups provided with this LAR.

The WCAP-17184 changes presented in proposed Appendix 7A, Section 7A.3 have already been revised and archived in Westinghouse's document management system to reflect the changes presented in proposed Appendix 7A, Section 7A.3. However, the newer revision of WCAP-17184 will not be incorporated into the plant's licensing basis immediately following approval of this LAR because the new WCAP revisions also include other changes that will be evaluated as departures in future licensing change packages. Therefore, by using Appendix 7A to capture changes to certain documents that are incorporated by reference into the UFSAR, the Licensee is able to efficiently implement the processes for changes and departures outlined in 10 CFR Part 52, Appendix D, Section VIII to request licensing changes on an individual topic (such as DAS cabinet relocation).

A similar approach is planned for other licensing change packages that will propose changes to information in digital I&C WCAPs that are incorporated by reference into the licensing basis. Following approval of the licensing change packages that affect digital I&C WCAPs that are incorporated by reference into the licensing basis an administrative departure is planned, in accordance with the 10 CFR Part 52, Appendix D, Section VIII departure evaluation requirements, to incorporate the final revision of digital I&C WCAPs that are have been affected by the LAR. This final departure is currently characterized as an administrative change, because the technical changes to digital I&C WCAPs will have already been approved via the previous licensing changes packages (such as this LAR on DAS cabinet relocation).

<u>Licensing Basis Change Descriptions</u>

<u>Tier 1</u>

- **Tier 1 Table 2.5.1-5**:
  - Revise to relocate DAS Processor Cabinets 1 and 2, DAS-JD-001 and DAS-JD-002, respectively, from the Annex Building to the Auxiliary Building and to delete DAS Instrument Cabinet, DAS-JD-004, from the listing.

- **Tier 1 Table 3.7-1, Risk-Significant Components**:
  - Delete the DAS Instrument Cabinet, DAS-JD-004, from the listing of DAS processor cabinets and control panel
  - Revise the description of the UPS Distribution Panels that power the DAS to indicate their location in the Auxiliary Building, rather than the Annex Building, and replace the four distribution panels (EDS1-EA-1, EDS1-EA-14, EDS2-EA-1, and EDS2-EA-14) with two distribution panels (EDS2-EA-12 and EDS3-EA-14A).

Tier 2

- **Section 7.7.1.11, Diverse Actuation System –**

  Revise to:
  - Note that redundant DAS actuation is provided at processor cabinet 1 and processor cabinet 2, in conjunction with the squib valve control cabinet,
  - Reflect that instrument output display in the MCR is repeated at DAS processor cabinet 1 (not the DAS instrumentation cabinet), and
  - Note that the DAS processor cabinets are located in the Seismic Category I Auxiliary Building (not the Seismic Category II portion of Annex Building).
- **Appendix 7A, Instrumentation and Controls Licensing Basis Changes**
  - Revise introductory note to Appendix 7A to explain the use of brackets and alphabetic codes for marking proprietary information.

  Section 7A.3, "WCAP-17184-P, "AP1000™ Diverse Actuation System Planning and Functional Design Summary Technical Report"
  - Revise to reflect WCAP-17184 markups, as summarized above.
- **Table 17.4-1, Risk-Significant SSCs Within the Scope of D-RAP:**

  Revise to delete DAS instrument cabinet DAS-JD-004 from the equipment numbers for the DAS processor cabinets and to revise the location and equipment numbers for the UPS Distribution Panels for DAS.
- **Section 19F.4.2, Site Arrangement** :

  Revise the description of the site arrangement of potential aircraft impact key features to indicate there is more than one remote DAS panel.
- **Section 19F.4.5, Supporting Power, Instrumentation, and Control Equipment**:

  Revise the description of the key design features for supporting power, instrumentation, and control equipment to:
  - Include the cabling to the DAS processor cabinets,
  - Indicate there is more than one remote DAS panel,
  - Indicate that DAS processor cabinet 1 and processor cabinet 2 are also part of the remote DAS.

3. TECHNICAL EVALUATION

The proposed configuration for the DAS will continue to provide a nonsafety-related diverse backup system for the protection and safety monitoring system. Seismic testing to Operating Basis Earthquake and Safe Shutdown Earthquake response spectra has been performed for the proposed DAS components to demonstrate that a spurious actuation of the squib valves from the DAS would not occur during a seismic event. Environmental qualification for a mild environment and qualification for electromagnetic interference testing has been performed for the proposed DAS components and the components have been shown to maintain these qualifications for their proposed location in the Auxiliary Building. The proposed design separates components and controls to preclude spurious actuation from fires. Separation of the functions between two processor cabinets with individual ALS chassis/core logic boards prevents the failure of one ALS chassis from potentially actuating the DAS.

By powering the DAS cabinets from the UPS that supplies the Auxiliary Building distribution panels, power can be maintained to the DAS in the event of a single failure. The UPS that supplies the Auxiliary Building distribution panels continues to be separate and independent from the PMS UPS power supply, as stated in UFSAR Subsection 7.7.1.11. This is similar to the current power arrangement provided to the remote DAS by separate diesel generators and distribution panels in the Annex Building, except the proposed separate power supplies to the individual remote DAS processor cabinets, in conjunction with separation of functions with the individual ALS chassis within each processor cabinet, provides a configuration in which a single failure cannot compromise the remote DAS. The heating, ventilation and air conditioning in the security room of the Auxiliary Building in which the remote DAS will be located will maintain a habitable atmosphere such that the proposed DAS equipment is not subjected to a higher temperature environment than that to which it was qualified.

The proposed changes do not impact fire protection in the remote DAS as discussed in UFSAR Subsection 9A.3.1.3.1.1. The fire loading in the remote DAS is not affected by any cabling enclosed in conduit to or between cabinets. Cabling or components within the metal cabinets are not included in the room fire loading.

The proposed changes do not adversely affect the reliability of the DAS. The changes do not affect any function or feature used for the prevention and mitigation of accidents or their safety analyses. The proposed changes do not involve nor interface with any SSC accident initiator or initiating sequence of events related to the accidents evaluated in the UFSAR. The proposed changes do not affect the radiological source terms (i.e., amounts and types of radioactive materials released, their release rates and release durations) used in the accident analyses.

The proposed changes to the DAS do not interface with/affect safety-related equipment or a fission product barrier. The combustible loadings of the affected areas are not adversely affected. No system or design function or equipment qualification is adversely affected by the proposed changes. The changes do not result in a new failure mode, malfunction or sequence of events that could adversely affect a radioactive material barrier or safety-related equipment. The proposed changes do not allow for a new fission product release path, result in a new fission product barrier failure mode, or create a new sequence of events that would result in significant fuel cladding failures.

The proposed changes to the remote DAS do not affect safety-related equipment or equipment whose failure could initiate an accident. The changes do not involve safety-

related equipment or a radioactive material barrier. The proposed changes do not affect any safety-related equipment, design code limit allowable value), safety-related function or design analysis, nor do they adversely affect any safety analysis input or result, or design/safety margin.

The proposed changes to include DAS cabling and to reflect the additional DAS panel that is protected as a key design feature in UFSAR Appendix 19F does not change the ability of the facility to protect these design features from a malevolent aircraft impact, thereby meeting the assessment requirements of 10 CFR 50.150(a)(1). Moving the entirety of remote DAS to the Radiologically Controlled Area side of Auxiliary Building will ensure that, with the loss of the clean side of the Auxiliary Building (including the MCR), DAS would still be available.

The SSCs affected by this license amendment request are not used to contain, control, channel, monitor, process or release radioactive and non-radioactive materials. The types and quantities of expected effluents are not changed, and no effluent release path is adversely affected by the proposed changes. Therefore, radioactive or non-radioactive material effluents are not affected by the proposed changes.

Plant radiation zones (as described in UFSAR Section 12.3), controls under 10 CFR 20, and expected amounts and types of radioactive materials are not affected by the proposed changes. Therefore, individual and cumulative radiation exposures do not change.

Physical Security Evaluation

There is no change to any perimeter walls acting as a security barrier or other aspects of the structures that could affect physical security. Personnel access to the security panels within the security room is maintained by the design of the new DAS processor cabinets. Authorized access to the interior of each cabinet is maintained by the cabinet design and configuration of the proposed processor cabinets within the security room. Access to the security room by operators or maintenance personnel is limited by approved access levels, as necessary.

Summary

Relocation of the remote DAS processor cabinets to the Auxiliary Building, elimination of the DAS instrument cabinet, and providing power from independent diesel generator-backed sources in the Auxiliary Building do not affect the design function of the DAS.

The above proposed changes would not adversely affect any safety-related equipment or function, design function, radioactive material barrier or safety analysis.

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 52.98(f) requires NRC approval for any modification to, addition to, or deletion from the terms and conditions of a COL. This activity involves a departure from COL Appendix C, Inspections, Tests, Analyses and Acceptance Criteria information; therefore, this activity requires an amendment to the COL. Accordingly, NRC approval is required prior to making the plant-specific changes in this license amendment request.

10 CFR 52, Appendix D, Section VIII.B.5.a allows an applicant or licensee who references this appendix to depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2* information, or the Technical Specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of the section. This activity requests Tier 2 changes that also involve departures from plant-specific Tier 1 information, and thus requires NRC approval for the Tier 1 and associated Tier 2 departures.

10 CFR 52, Appendix D, Section VIII.B.5.d requires an applicant or licensee who proposes to depart from the information required by 10 CFR 52.47(a)(28) to be included in the FSAR, to consider the effect of the changed feature or capability on the original assessment required by 10 CFR 50.150(a). The applicant or licensee must also document how the modified design features and functional capabilities continue to meet the assessment requirements in 10 CFR 50.150(a)(1) in accordance with 10 CFR 52, Appendix D, Section X. The activity to relocate the entirety of the remote DAS to the Auxiliary Building Radiologically Controlled Area side will ensure the DAS is available in the event the non-radiologically controlled area (including the MCR) is lost due to an aircraft impact.

10 CFR 50.62 requires each pressurized water reactor to have equipment from equipment, from sensor to final actuation device that is diverse from the reactor trip system, to automatically initiate the auxiliary feedwater system and initiate a turbine trip under conditions indicative of a anticipated transient without scram. This scam function must be designed to perform its function in a reliable manner and be independent (from sensor output to the final actuation device) from the exiting reactor trip system. This activity involves a change to the diverse actuation system (DAS), which is a nonsafety-related backup to the safety-related protection and safety monitoring system (PMS). The independence of the DAS in performing the reactor trip-related functions from the PMS reactor trip functions is not affected by this change.

10 CFR Part 50, Appendix A, Criterion 22, Protection System Independence, requires that design techniques such as functional diversity or diversity in component design and principles of operation shall be used to the extent practical to prevent loss of the protection function. This activity involves a revision to the DAS, which is a nonsafety-related diverse backup to the safety-related protection system; i.e., the PMS. The diversity between the DAS and the PMS is not affected by this change.

4.2 Precedent

No precedent is identified.

4.3 Significant Hazards Consideration

The proposed changes revise the Combined Licenses (COLs) with regard to COL Appendix C information (and associated Tier 1 information), and Tier 2 information involving these changes to Tier 1 information. The proposed changes revise the configuration, location and power supply arrangement of the diverse actuation system (DAS).

An evaluation to determine whether or not a significant hazards consideration is involved with the proposed amendment was completed by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of Amendment,” as discussed below:

4.3.1 Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The changes to the design of the diverse actuation system (DAS) are proposed to conform to the DAS fire-induced spurious actuation (smart fire) of the squib valves and single point failure criteria. The DAS is a nonsafety-related diverse backup to the safety-related protection and safety monitoring system (PMS). The proposed changes do not involve any accident initiating component/system failure or event, thus the probabilities of the accidents previously evaluated are not affected. The affected equipment does not adversely affect or interact with safety-related equipment or a radioactive material barrier, and this activity does not involve the containment of radioactive material. Thus, the proposed changes would not affect any safety-related accident mitigating function. The radioactive material source terms and release paths used in the safety analyses are unchanged, thus the radiological releases in the Updated Final Safety Analysis Report (UFSAR) accident analyses are not affected.

Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

4.3.2 Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The proposed changes to the design of the DAS do not alter the performance of the DAS as a nonsafety-related diverse backup to the PMS. The new configuration within two independent and separate processor cabinets located in the Auxiliary Building do not adversely affect any safety-related equipment or function, therefore no new accident initiator or failure mode is created. The changes to provide independent power supplies to the separate processor cabinets do not have any impact any safety-related equipment or function, and no new accident or failure mode is created. The proposed changes do not create a new fault or sequence of events that could lead to a radioactive release. The changes do not adversely affect any safety-related equipment or structure.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

4.3.3 Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No

The proposed changes to the design of the DAS do not affect any safety-related equipment or function. The proposed changes do not have any adverse effect on the ability of safety-related structures, systems, or components to perform their design basis functions. No safety analysis or design basis acceptance limit/criterion is challenged or exceeded by the proposed changes, thus no margin of safety is reduced.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

Based on the above, it is concluded that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.4 Conclusions

Based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public. The above evaluations demonstrate that the requested changes can be accommodated without an increase in the probability or consequences of an accident previously evaluated, without creating the possibility of a new or different kind of accident from any accident previously evaluated, and without a significant reduction in a margin of safety. Having arrived at negative declarations with regard to the criteria of 10 CFR 50.92, this assessment determined that the requested change does not involve a Significant Hazards Consideration.

5. ENVIRONMENTAL CONSIDERATION

This review supports a request to amend the licensing basis documents to allow departure from the plant-specific Design Control Document (DCD) as incorporated into the Updated Final Safety Analysis Report (UFSAR) related to proposed changes to the design of the diverse actuation system (DAS) to be consistent with the DAS fire-induced spurious actuation (smart fire) of the squib valves and single point failure criteria.

The requested amendment proposes changes to COL Appendix C information (and corresponding plant-specific Tier 1 information) and UFSAR information.

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR Part 20, or would change an inspection or surveillance requirement. However, facility construction and operation following implementation of the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9), in that:

(i) There is no significant hazards consideration.

As documented in Section 4.3, Significant Hazards Consideration Determination, of this license amendment request, an evaluation was completed to determine whether or not a significant hazards consideration is involved by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment." The Significant Hazards Consideration determined that (1) the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously

evaluated; (2) the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated; and (3) the proposed amendment does not involve a significant reduction in a margin of safety. Therefore, it is concluded that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

The proposed to the design of the diverse actuation system (DAS) provide consistency with the DAS fire-induced spurious actuation (smart fire) and single point failure criteria. The proposed changes are unrelated to any aspect of plant construction or operation that would introduce any change to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, and other effluents), or affect any plant radiological or non-radiological effluent release quantities. Furthermore, the proposed changes do not affect any effluent release path or diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation. Therefore, it is concluded that the proposed amendment does not involve a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes eliminate vulnerabilities in the DAS to smart fires and spurious actuation due to a single point failure. Plant radiation zones (addressed in UFSAR Section 12.3) are not affected, and controls under 10 CFR 20 preclude a significant increase in occupational radiation exposure. Therefore, the proposed amendment does not involve a significant increase in individual or cumulative occupational radiation exposure.

Based on the above review of the requested amendment, it has been determined that anticipated construction and operational effects of the proposed amendment do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the requested amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6. REFERENCES

None

Southern Nuclear Operating Company

Vogtle Electric Generating Plant Units 3 and 4

ND-15-0752

Enclosure 2

Exemption Request

Diverse Actuation System (DAS) Cabinet Changes

(LAR-15-005)

(8 pages, including this cover page)

1.0 PURPOSE

Southern Nuclear Operating Company (the Licensee) requests a permanent exemption from the provisions of 10 CFR 52, Appendix D, Section III.B, "Design Certification Rule for the AP1000 Design, Scope and Contents," to allow a departure from elements of the certification information in Tier 1 of the generic AP1000 Design Control Document (DCD). The regulation, 10 CFR 52, Appendix D, Section III.B, requires an applicant or licensee referencing Appendix D to 10 CFR Part 52 to incorporate by reference and comply with the requirements of Appendix D, including certified information in DCD Tier 1. Tier 1 includes ITAAC that must be satisfactorily performed prior to fuel load. The design details to be verified by these ITAAC are specified in the tables that are referenced in each individual ITAAC. The Tier 1 information for which a plant-specific departure and exemption is being requested includes detailed information, such as tag numbers and locations of diverse actuation system (DAS) cabinets, in system and non-system based ITAAC.

This request for exemption will apply the requirements of 10 CFR 52, Appendix D, Section VIII.A.4 to allow changes to Tier 1 information due to the following proposed changes to the system and non-system based design descriptions and ITAAC tables:

- Table 2.5.1-5: Revise as follows:
  - Revise the component location for DAS Processor Cabinets 1 and 2 to reflect the relocation from the Annex Building to the Auxiliary Building.
  - Delete DAS Instrument Cabinet and associated entries for tag number and component location to reflect the reconfiguration of the DAS cabinets.
- Table 3.7-1, Risk-Significant Components: Under the "Diverse Actuation System (DAS)" heading, revise as follows:
  - Delete "DAS-JD-004" (DAS Instrument Cabinet) from the tag numbers for the DAS Processor Cabinets and Control Panel to reflect reconfiguration of the DAS cabinets.
  - Change the Equipment Name of the UPS distribution panels that provide power to DAS from "Annex Building" to "Auxiliary Building".
  - Change the Tag Numbers for the uninterruptible power supply (UPS) distribution panels that provide power to DAS to "EDS2-EA-12" and "EDS3-EA-14A" and delete EDS1-EA-1, EDS1-EA-14, EDS2-EA-1, and EDS2-EA-14.

This request applies the requirements for granting exemptions from design certification information, as specified in 10 CFR Part 52, Appendix D, Section VIII.A.4, 10 CFR 52.63, §52.7, and §50.12.

2.0 BACKGROUND

The Licensee is the holder of Combined License Nos. NPF-91 and NPF-92, which authorize construction and operation of two Westinghouse Electric Company AP1000

nuclear plants, named Vogtle Electric Generating Plant (VEGP) Units 3 and 4, respectively.

The cabinets containing DAS instrumentation and control equipment are being reconfigured to eliminate smart fire and single point failure vulnerabilities that could cause a spurious actuation. Specifically, the DAS Instrument Cabinet, DAS-JD-004, will be eliminated, the two DAS Processor Cabinets, DAS-JD-001 and DAS-JD-002, will be reconfigured and relocated from the Annex Building to the Auxiliary Building, and Auxiliary Building power supplies, rather than the current Annex Building power supplies, will be used to power the DAS processor cabinets. These changes will allow for physical separation of the squib valve controls and relays, provide space for a logic processing subsystem to be installed in each of the processor cabinets, and provide power to each processor cabinet from distribution panels that can be powered from independent diesel generators, thereby ensuring that the loss of a diesel generator will not result in a loss of the DAS. These activities require an exemption from the generic DCD Tier 1 tables that are involved with the plant-specific DCD Tier 2 departures, and which support the associated COL Appendix C ITAAC.

The relocation of the DAS Processor Cabinets to the Auxiliary Building will require that the Auxiliary Building power supplies be used to power the DAS processor cabinets. With two Processor Cabinets and their two ALS subsystems, each processor cabinet will be powered by distribution panels that can be powered from independent diesel generators, thereby ensuring the loss of a diesel generator will not result in a loss of the DAS. Therefore, the tag numbers for the Uninterruptible Power Supply (UPS) Distribution Panels that will power the DAS are proposed to be revised to eliminate the previous power supplies for the Processor Cabinets in the Annex Building and to provide the power supplies for the relocated cabinets in the Auxiliary Building in Tier 1 Table 3.7-1 and corresponding COL Appendix C Table 3.7-1, and UFSAR Table 17.4-1.

This enclosure requests an exemption from elements of the AP1000 (Tier 1) design information to allow a departure from tables associated ITAAC for the DAS and associated UPS power supplies. The proposed departure would revise the location of DAS Processor Cabinets 1 and 2 (DAS-JD-001 and DAS-JD-002) in Tier 1 Table 2.5.1-5, delete the DAS Instrument Cabinet (DAS-JD-004) from Tier 1 Tables 2.5.1-5 and 3.7-1, and revise the location and tag numbers for the UPS distribution panels that will power the DAS in Tier 1 Table 3.7-1.

As discussed above, an exemption from elements of the AP1000 certified (Tier 1) design information is requested to allow plant-specific departures to be taken from system and non-system based ITAAC tables.

3.0 TECHNICAL JUSTIFICATION OF ACCEPTABILITY

An exemption is requested to depart from AP1000 generic Design Control Document (DCD) Tier 1 material by departing from the description of the DAS cabinets and associated UPS distribution panels in Tier 1 Table 2.5.1-5, Inspections, Tests, Analyses, and Acceptance Criteria and Tier 1 Table 3.7-1, Risk-Significant Components. The proposed changes eliminate smart fire and single point failure vulnerabilities that could cause a spurious actuation. The proposed changes do not adversely impact the design

function of the diverse actuation system to provide a diverse backup to the protection and safety monitoring system (PMS).

Therefore, the DAS will continue to meet its required functionality following implementation of the proposed changes.

Detailed technical justification supporting this request for exemption is provided in Section 3 of the associated License Amendment Request in Enclosure 1 of this letter.

4.0 JUSTIFICATION OF EXEMPTION

10 CFR Part 52, Appendix D, Section VIII.A.4 and 10 CFR 52.63(b)(1) govern the issuance of exemptions from elements of the certified design information for AP1000 nuclear power plants. Because the Licensee has identified changes to the Tier 1 information related to the diverse actuation system and associated UPS distribution panels as a result of design finalization activities, an exemption from the certified design information in Tier 1 is needed.

10 CFR Part 52, Appendix D, and 10 CFR 50.12, §52.7, and §52.63 state that the NRC may grant exemptions from the requirements of the regulations provided six conditions are met: 1) the exemption is authorized by law [§50.12(a)(1)]; 2) the exemption will not present an undue risk to the health and safety of the public [§50.12(a)(1)]; 3) the exemption is consistent with the common defense and security [§50.12(a)(1)]; 4) special circumstances are present [§50.12(a)(2)(ii)]; 5) the special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption [§52.63(b)(1)]; and 6) the design change will not result in a significant decrease in the level of safety [Part 52, App. D, VIII.A.1].

The requested exemption to change the configuration and location of the DAS cabinets and their associated UPS distribution panels satisfies the criteria for granting specific exemptions, as described below.

1. This exemption is authorized by law

The NRC has authority under 10 CFR 52.63, §52.7, and §50.12 to grant exemptions from the requirements of NRC regulations. Specifically, 10 CFR 50.12 and §52.7 state that the NRC may grant exemptions from the requirements of 10 CFR Part 52 upon a proper showing. No law exists that would preclude the changes covered by this exemption request. Additionally, granting of the proposed exemption does not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations.

Accordingly, this requested exemption is "authorized by law," as required by 10 CFR 50.12(a)(1).

2. This exemption will not present an undue risk to the health and safety of the public

The proposed exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would allow changes to elements of the plant-specific Tier 1 DCD to depart from the AP1000 certified (Tier 1) design information. The plant-specific DCD Tier 1 will continue to reflect the approved licensing basis for VEGP Units 3 and 4, and will maintain a consistent level of detail with that which is currently provided elsewhere in Tier 1 of the DCD. Therefore, the affected plant-specific DCD Tier 1 ITAAC will continue to serve its required purpose.

The changes to the configuration and location of the DAS cabinets and the associated UPS distribution panels do not represent any adverse impact to their design functions or the systems, structures and components therein and will continue to protect the health and safety of the public in the same manner. These changes do not introduce any new industrial, chemical, or radiological hazards that would represent a public health or safety risk, nor do they modify or remove any design or operational controls or safeguards intended to mitigate any existing on-site hazards. Furthermore, the proposed changes would not allow for a new fission product release path, result in a new fission product barrier failure mode, or create a new sequence of events that would result in fuel cladding failures. Accordingly, these changes do not present an undue risk from any existing or proposed equipment or systems.

Therefore, the requested exemption from 10 CFR 52, Appendix D, Section III.B would not present an undue risk to the health and safety of the public.

3. The exemption is consistent with the common defense and security

The exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would change elements of the DAS and associated UPS distribution panels as presented in the system and non-system based ITAAC tables in the plant-specific DCD Tier 1, thereby departing from the AP1000 certified (Tier 1) design information. The proposed exemption will enable performance of the ITAAC associated with these changed elements, by reflecting the current design information in the text, tables, and figures that are referenced in these ITAAC. The exemption does not adversely impact the design, function, or operation of any plant SSCs associated with the facility's physical or cyber security, and therefore does not adversely affect any plant equipment that is necessary to maintain a safe and secure plant status. The proposed exemption has no adverse impact on plant security or safeguards.

Therefore, the requested exemption is consistent with the common defense and security.

4. Special circumstances are present

10 CFR 50.12(a)(2) lists six "special circumstances" for which an exemption may be granted. Pursuant to the regulation, it is necessary for one of these special circumstances to be present in order for the NRC to consider granting an exemption request. The requested exemption meets the special circumstances of 10 CFR 50.12(a)(2)(ii). That subsection defines special circumstances as when "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule."

The rule under consideration in this request for exemption is 10 CFR Part 52, Appendix D, Section III.B, which requires that a licensee referencing the AP1000 Design Certification Rule (10 CFR Part 52, Appendix D) shall incorporate by reference and comply with the requirements of Appendix D, including Tier 1 information. The VEGP Units 3 and 4 COLs reference the AP1000 Design Certification Rule and incorporate by reference the requirements of 10 CFR Part 52, Appendix D, including Tier 1 information. The underlying purpose of Appendix D, Section III.B is to describe and define the scope and contents of the AP1000 design certification, and to require compliance with the design certification information in Appendix D.

The proposed exemption would allow changes to reconfigure and relocate the DAS cabinets and relocate the power supplies for the DAS processor cabinets, as presented in Tier 1 ITAAC tables.

The DAS instrument cabinet is being deleted and the processor cabinets reconfigured and relocated, along with their associated power supplies, to eliminate smart fire and single point failure vulnerabilities that could cause a spurious actuation. The relocated processor cabinets, in concert with the squib valve control cabinet located in the same area of the Auxiliary Building, will allow for physical separation of the squib valve controls and relays, and provide space for a logic processing subsystem to be installed in each of the processor cabinets. Each of the relocated processor cabinets is environmentally and seismically qualified, and has been qualified for electromagnetic interference. Each of the two processor cabinets will be powered by distribution panels that can be powered from independent diesel generators, thereby ensuring the loss of a diesel generator will not result in a loss of the DAS. These changes have been evaluated and confirmed to support the design function of the DAS to provide a diverse backup to the protection and safety monitoring system (PMS). Therefore, the DAS will continue to meet its required functionality following implementation of the proposed changes.

The proposed changes described above maintain the design functions of the DAS. This change does not impact the ability of any SSCs to perform their functions or negatively impact safety. Accordingly, this change to the certified information will enable the licensee to safely construct, maintain, and operate the AP1000 facility consistent with the design certified by the NRC in 10 CFR Part 52, Appendix D.

Therefore, special circumstances are present, because application of the current generic certified design information in Tier 1 as required by 10 CFR Part 52, Appendix D, Section III.B, in the particular circumstances discussed in this request is not necessary to achieve the underlying purpose of the rule.

5. The special circumstances outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption

The exemption from the requirements of 10 CFR 52, Appendix D, Section III.B would change elements of the plant-specific DCD Tier 1 by departing from standard AP1000 certified (Tier 1) design information. This exemption would allow a change to system and non-system based ITAAC tables. Based on the nature of the proposed changes to the generic Tier 1 information and the understanding that these changes were identified during the design finalization process for the AP1000, it is expected that this exemption will be requested by other AP1000 licensees and applicants. However, even if other AP1000 licensees and applicants do not request this same departure, the special

circumstances will continue to outweigh any decrease in safety from the reduction in standardization because the key design functions of the DAS and associated UPS subsystems associated with this request will continue to be maintained. Furthermore, the justification provided in the license amendment request and this exemption request and the associated mark-ups demonstrate that there is a limited change from the standard information provided in the generic AP1000 DCD, which is offset by the special circumstances identified above.

Therefore, the special circumstances associated with the requested exemption outweigh any decrease in safety that may result from the reduction in standardization caused by the exemption.

6. The design change will not result in a significant decrease in the level of safety.

The proposed exemption would allow changes to reconfigure and relocate DAS cabinets and the associated UPS distribution panels, and enhance the accuracy of details presented in Tier 1 ITAAC tables. The level of safety presented by DAS is defined by the system's ability provide a diverse backup to the protection and safety monitoring system (PMS), thereby reducing the probability of a severe accident that could potentially result from the unlikely coincidence of postulated transients and postulated common mode failures in the PMS.

As a result of the limited scope and nature of the proposed changes associated with this exemption request, no systems or equipment will be adversely impacted such that there are new failure modes introduced by these changes and the level of safety provided by the current DAS and the associated UPS distribution equipment will be maintained.

Because the proposed changes to the DAS cabinets and UPS distribution panels will not adversely affect the ability of this system to perform its design functions and the level of safety provided by the current systems and equipment contained therein is unchanged, it is concluded that the design change associated with the proposed exemption will not result in a significant decrease in the level of safety.

5.0 RISK ASSESSMENT

A risk assessment was not determined to be applicable to address the acceptability of this proposal.

6.0 PRECEDENT EXEMPTIONS

None identified.

7.0 ENVIRONMENTAL CONSIDERATION

The Licensee requests a departure from elements of the certified information in Tier 1 of the generic AP1000 DCD. The Licensee has determined that the proposed departure would require a permanent exemption from the requirements of 10 CFR 52, Appendix D, Section III.B, "Design Certification Rule for the AP1000 Design, Scope and Contents" with respect to installation or use of facility components located within the restricted area, as defined in 10 CFR Part 20, or which changes an inspection or a surveillance

requirement; however, the Licensee evaluation of the proposed exemption has determined that the proposed exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.25(c)(9).

Based on the above review of the proposed exemption, the Licensee has determined that the proposed activity does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment of the proposed exemption is not required.

Specific details of the environmental considerations supporting this request for exemption are provided in Section 5 of the associated License Amendment Request provided in Enclosure 1 of this letter.

8.0 CONCLUSION

The Licensee requests a permanent exemption for elements of AP1000 design certification information reflected in Tier 1. The proposed changes to Tier 1 are necessary to revise ITAAC tables in the plant-specific DCD Tier 1 to reflect the proposed plant-specific design. The proposed exemption would allow departure from AP1000 generic Tier 1 DCD information by revising the location of DAS Processor Cabinets 1 and 2, deleting the DAS Instrument Cabinet, and revising the location and tag numbers for the UPS distribution panels that will power the DAS in Tier 1 ITAAC tables. The exemption request meets the requirements of 10 CFR 52.63, “Finality of design certifications,” 10 CFR 52.7, “Specific exemptions,” 10 CFR 50.12, “Specific exemptions,” and 10 CFR 52 Appendix D, “Design Certification Rule for the AP1000.” Specifically, the exemption request meets the criteria of 10 CFR 50.12(a)(1) in that the request is authorized by law, presents no undue risk to public health and safety, and is consistent with the common defense and security. Furthermore, approval of this request does not result in a significant decrease in the level of safety, satisfies the underlying purpose of the AP1000 Design Certification Rule, and does not present a significant decrease in safety as a result of a reduction in standardization.

The proposed departure would revise the location of DAS Processor Cabinets 1 and 2 (DAS-JD-001 and DAS-JD-002) in Tier 1 Table 2.5.1-5, delete the DAS Instrument Cabinet (DAS-JD-004) from Tier 1 Tables 2.5.1-5 and 3.7-1, and revise the location and tag numbers for the UPS distribution panels that will power the DAS in Tier 1 Table 3.7-1.

9.0 REFERENCES

None

Southern Nuclear Operating Company

Vogtle Electric Generating Plant Units 3 and 4

ND-15-0752

Enclosure 3

Proposed Changes to the Updated Final Safety Analysis Report (UFSAR)
(LAR-15-005)

(Publicly Available Information)

Note:
Added text is shown as **Blue Underline**
Deleted text is shown as ~~**Red Strikethrough**~~
Omitted text is shown as three asterisks (* * *)

(11 pages, including this cover page)

1. **COL Appendix C (and plant-specific Tier 1) Table 2.5.1-5**

   Revise COL Appendix C (and plant-specific Tier 1) information by changing the location of DAS Processor Cabinets 1 and 2 and deleting the DAS Instrument Cabinet, as shown below:

Table 2.5.1-5		
Component Name	**Tag No.**	**Component Location**
DAS Processor Cabinet 1	DAS-JD-001	~~Annex~~ Auxiliary Building
DAS Processor Cabinet 2	DAS-JD-002	~~Annex~~ Auxiliary Building
DAS Squib Valve Control Cabinet	DAS-JD-003	Auxiliary Building
~~DAS Instrument Cabinet~~	~~DAS-JD-004~~	~~Auxiliary Building~~

2. **COL Appendix C (and plant-specific Tier 1) Table 3.7-1, "Risk-Significant Components":**

   Revise COL Appendix C (and plant-specific Tier 1) information by changing the DAS Processor Cabinets and Control Panel and UPS Distribution Panels that provide power to DAS, as follows:

Table 3.7-1 Risk-Significant Components	
Equipment Name	**Tag No.**
* * *	
Diverse Actuation System (DAS)	
DAS Processor Cabinets and Control Panel (used to provide automatic and manual actuation)	DAS-JD-001 DAS-JD-002 DAS-JD-003 ~~DAS-JD-004~~ OCS-JC-020
~~Annex~~ Auxiliary Building UPS Distribution Panels (provide power to DAS)	~~EDS1-EA-1, EDS1-EA-14,~~ ~~EDS2-EA-1, EDS2-EA-14~~ EDS2-EA-12, EDS3-EA-14A
Rod Drive MG Sets (Field Breakers)	PLS-MG-01A/B
Containment Isolation Valves Controlled by DAS	CVS-PL-V045, -V047 VFS-PL-V003, -V004, -V009, -V010 WLS-PL-V055, -V057
* * *	

3. UFSAR Section 7.1, Subsection 7.7.1.11, "Diverse Actuation System":

Revise the last paragraph under the heading, "Manual Actuation Function," as follows:

In addition to the above functions, a redundant method of actuating the following components is provided at the DAS processor cabinet 1, processor cabinet 2, and squib valve control cabinet:

- Open stage 4 automatic depressurization system valves
- Initiate in-containment refueling water storage tank injection
- Initiate containment recirculation
- Initiate in-containment refueling water storage tank drain to containment

Revise the paragraph under the "Indication" heading, as follows:

To support the diverse manual actuations, sensor outputs are displayed in the main control room in a manner that is diverse from the protection system display functions. The instrument sensor output displayed in the main control room is repeated at the DAS ~~instrumentation cabinet~~ processor cabinet 1. The indications that are provided from at least two sensors per function are:

* * *

Revise the second paragraph under the "Equipment Qualification and Quality Standards" heading, as follows:

The diverse actuation system processor cabinets are located in the ~~portion of the Annex Building that is a Seismic Category II structure~~ seismic Category I Auxiliary Building. The diverse actuation system equipment, including actuated devices, is designed and tested in accordance with industry standards. The adequacy of the hardware and software (if any) is demonstrated through a diverse form of the verification and validation program discussed in Subsection 7.1.2.14. This program provides for the use of commercial off-the-shelf hardware and software. As the diverse actuation system performs many of the protection functions associated within the ATWS systems used in existing plants, the diverse actuation system is designed to meet the quality guidelines established by Generic Letter 85-06, "Quality Assurance Guidelines for ATWS Equipment that is not Safety-Related."

4. UFSAR Appendix 7A, "INSTRUMENTATION AND CONTROLS LICENSING BASIS DOCUMENT CHANGES"

Revise the introductory note following the title of Appendix 7A, as follows:

Note: Revised text within the licensing basis documents is identified in this appendix with strikethrough font for deleted text, underlined font for new text, and three asterisks (* * *) where text is omitted for clarity. Proprietary Information is bracketed and labeled with lower case alphabetic code letters outside the brackets to indicate the criteria or basis on which the proprietary determination was made.

Revise Section 7A.3, "WCAP-17184-P, AP1000™ Diverse Actuation System Planning and Functional Design Summary Technical Report," by inserting the following text after the change to the REFERENCES section, as follows (Note: This text is all new, and is shown in blue font; however, for clarity, only the text that is being added to current text in WCAP-17184-P is underlined.):

- Revise Section 1.3, "DEVELOPMENT PHASE," second paragraph, as follows:

  [

  ]a,c

- Revise Section 1.3.3.3, "Implementation Phase," first paragraph, as follows:

  [

  ]a,c

- Revise Section 2.5.5.2, "DAS Compliance," third paragraph, as follows:

  [

  ]a,c

- Revise Figure 3-1, "DAS Block Diagram," as shown on the next page.

- Revise Figure 3-2, "An Overview of the DAS Cabinetry Layout," as shown on the page following the next page.

a.c

Figure 3-1 DAS Block Diagram

a,c

Figure 3-2 An Overview of the DAS Cabinetry Layout

- Revise Section 3.1, "SYSTEM DESCRIPTION," second paragraph, as follows:

  * * *

  The DAS consists of the following equipment:
  - ~~DAS Instrumentation Cabinet~~
  - DAS Processor Cabinet 1
  - DAS Processor Cabinet 2
  - DAS Squib Valve Controller Cabinet
  - DAS Manual Actuation Controls (located on the DAS Control Panel and the DAS ~~Instrumentation Cabinet~~ Processor Cabinets 1 and 2)
  - DAS Process Instrumentation Displays (located on the DAS Control Panel and the DAS ~~Instrumentation Cabinet~~ Processor Cabinet 1)

- Revise and rename Section 3.1.1, "DAS Instrumentation Cabinet," as follows:

  3.1.1 DAS ~~Instrumentation~~ Processor Cabinets

  The DAS ~~Instrumentation Cabinet contains~~ Processor Cabinets contain power supplies, plant process field terminations, ~~power supplies,~~ signal conditioning, the DAS logic subsystem, dedicated plant process displays, manual actuation controls, and termination areas associated with the interconnection of ~~this~~ these cabinets to other equipment.

  The DAS ~~Instrumentation Cabinet receives the~~ Processor Cabinets receive plant process signals from ~~the~~ dedicated DAS sensors. The DAS sensors are provided by other systems. [Half the DAS plant process signals are fed to Processor Cabinet 1, the other half to Processor Cabinet 2.][a,c] ~~The cabinet provides signal conditioning of process signals associated with dedicated DAS sensors.~~ The DAS sensors are provided by other systems. The signals received from these DAS sensors are filtered, scaled, and provided to the DAS logic subsystem. The processed signals are also provided to process indicating displays ~~and are input to the DAS processor cabinets~~ via serial data communication links. [

  ][a,c]

- Add Section 3.1.1.1, "DAS Processor Cabinet 1," as follows:

  3.1.1.1 DAS Processor Cabinet 1

  [

  ][a,c]

[

]a,c

- Add Section 3.1.1.2, “DAS Processor Cabinet 2,” as follows:

  3.1.1.2 DAS Processor Cabinet 2

  [

  ]a,c

- Revise and renumber Section 3.1.2, “DAS Processor Cabinets,” as follows:

  ~~3.1.2~~ 3.1.1.3 DAS Processor Cabinets

  ~~The two DAS processor cabinets contain the DAS logic subsystem, power supplies, and termination areas associated with the interconnection of these cabinets to other equipment.~~

  The DAS logic subsystem evaluates select process signal inputs ~~provided by Instrumentation Cabinet~~ against fixed setpoints to determine the need for automatic DAS actuation. [

  ]a,c

- Revise and renumber Section 3.1.4, “DAS Manual Actuation Controls,” as follows:

  ~~3.1.4~~ 3.1.3 DAS Manual Actuation Controls

  Manual actuation of DAS functions is provided by manual actuation controls. [

]a,c

- Revise, rename, and renumber Section 3.1.5, “DAS Manual Actuation Switches,” as follows:

  ~~3.1.5~~ 3.1.3.1 DAS MCR Manual Actuation Switches

  The DAS manual actuation switches are located on a dedicated panel which is located in the MCR. [

  ]a,c

- Revise and renumber Section 3.1.6, “[ ]a,c”, second paragraph, as follows:

  ~~3.1.6~~ 3.1.3.2 [ ]ac

  [

  ]a,c

- Add Section 3.1.3.4, “[ ]a,c,” as follows:

  3.1.3.4 [ ]a,c

  [

  ]a,c

- Add Section 3.1.3.5, “[ ]a,c,” as follows:

  3.1.3.5 [ ]a,c

  [

  ]a,c

- Revise and renumber Section 3.1.8, "DAS Process Indicating Displays," as follows:

  ~~3.1.8~~ 3.1.4 DAS Process Indicating Displays

  The DAS process indications are located on the DAS Control Panel and the DAS ~~Instrumentation Cabinet~~ Processor Cabinet 1. Each DAS process indicating display receives its associated plant process signal via serial data communication data links routed from ~~the DAS Instrumentation Cabinet~~ Processor Cabinet 1 or Processor Cabinet 2. The DAS process indicating displays are powered from the ~~instrumentation cabinet~~ Processor Cabinet 1 DC power supplies.

- Revise Section 3.2.1, "Cabinet Location Justification," as follows:

  3.2.1 Cabinet Location Justification

  [

  ]a,c

  * * *

  [

  ]a,c

- Revise Section 3.2.2, "Independence from Protection System Justification," fifth paragraph, as follows:

  [

  ]a,c

5. UFSAR Section 17.4, Table 17.4-1, "Risk-Significant SSCs Within the Scope of D-RAP":

Revise Tier 2 information by changing the SSCs in the scope of D-RAP for the DAS Processor Cabinets and Control Panel and UPS Distribution Panels that provide power to DAS, as follows:

System, Structure, or Component (SSC) (1)	Rationale (2)	Insights and Assumptions
* * *		
System: Diverse Actuation System (DAS)		
DAS Processor Cabinets and Control Panel (used to provide automatic and manual actuation) (DAS-JD-001, -002, -003, ~~-004,~~ OCS-JC-020)	RAW	The DAS is diverse from the PMS and provides automatic and manual actuation of selected plant features including control rod insertion, turbine trip, passive residual heat removal (PRHR) heat exchanger actuation, core makeup tank actuation, isolation of critical containment lines, and passive containment cooling system (PCS) actuation.
~~Annex~~ Auxiliary Building UPS Distribution Panels	RAW	These panels distribute power to the DAS equipment.

(~~EDS1-EA-1, EDS1-EA-14, EDS2-EA-1, EDS2-EA-14~~ EDS2-EA-12, EDS3-EA-14A)		
* * *		

6. **UFSAR Appendix 19F, "Malevolent Aircraft Impact," Subsection 19F.4.2, "Site Arrangement":**

Revise Tier 2 information in the fourth bullet under the first paragraph, as follows:

The locations of the main control room (MCR), remote shutdown station, and secondary diverse actuation system (DAS) ~~panel~~ panels are a key design feature for the protection against the physical and fire damage resulting from the impact of a large commercial aircraft. The detailed aircraft impact assessment shows that an aircraft impact cannot destroy all three of these locations due to the number of barriers associated with these locations. The main control room is located in room 12401, the remote shutdown station is located in room 12303, and the secondary DAS ~~panel is~~ panels are located in room 12554. The assessment determined that any impact scenario would not destroy all three of these locations, and from any one of these locations, passive safety injection and recirculation for long-term core cooling can be initiated.

7. **UFSAR Appendix 19F, "Malevolent Aircraft Impact," Subsection 19F.4.5, "Supporting Power, Instrumentation, and Control Equipment":**

Revise Tier 2 information, as follows:

The supporting equipment for the main control room, remote shutdown station, and secondary DAS ~~panel~~ panels are key design features. These include the class 1E batteries, the supporting PMS control and instrumentation cabinets and cabling for the equipment identified in Subsection 19F.4.3, the transfer switch to isolate the MCR and transfer controls to the remote shutdown room, and the DAS cabling for the DAS processor cabinet 1, processor cabinet 2, and squib valve control cabinet, which are referred to as the DAS secondary panels. These key design features enable the actuation of safety injection through operation of the squib valves. The functional capabilities of the secondary DAS ~~panel~~ panels are described in Subsection 7.7.1.11~~ and is referred to as the DAS squib valve control cabinet~~. These key design features are protected by their spatial separation as described in Subsection 19F.4.2.

Southern Nuclear Operating Company

Vogtle Electric Generating Plant Units 3 and 4

ND-15-0752

Enclosure 4

Proposed Changes to the Updated Final Safety Analysis Report (UFSAR)
(LAR-15-005)

(Withheld Information)

Note:
Added text is shown as **Blue Underline**

Deleted text is shown as ~~**Red Strikethrough**~~

Omitted text is shown as three asterisks (* * *)

(8 pages, including this cover page)

Southern Nuclear Operating Company

ND-15-0752

Enclosure 5

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

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

(Enclosure 5 consist of 3 pages, including this cover page)

Affidavit of Wesley A. Sparkman

1. My name is Wesley A. Sparkman. I am the Regulatory Affairs Licensing Manager, Nuclear Development, 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 filings on dockets 52-025 and 52-026, Vogtle Electric Generating Plant (VEGP) Units 3 and 4, Request for License Amendment and Exemption: Diverse Actuation System (DAS) Cabinet Changes (LAR-15-005), also referred to as Westinghouse LAR-29. 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 4 of Vogtle Electric Generating Plant (VEGP) Units 3 and 4, Request for License Amendment: Diverse Actuation System (DAS) Cabinet Changes (LAR-15-005), also referred to as Westinghouse LAR-29.
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 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.

d. Other reasons identified in Enclosure 6 of Vogtle Electric Generating Plant (VEGP) Units 3 and 4, Request for License Amendment and Exemption: Diverse Actuation System (DAS) Cabinet Changes (LAR-15-005) (dockets 52-025 and 52-026), 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.

Wesley A. Sparkman

Executed on 4/17/2015

Southern Nuclear Operating Company

ND-15-0752

Enclosure 6

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Westinghouse Authorization Letter CAW-15-4130, Affidavit, Proprietary Information Notice and Copyright Notice

(LAR-15-005)

(Enclosure 6 consist of 8 pages, including this cover page)

Westinghouse

Westinghouse Electric Company
Engineering, Equipment and Major Projects
1000 Westinghouse Drive, Building 3
Cranberry Township, Pennsylvania 16066
USA

Document Control Desk
U S Nuclear Regulatory Commission
Washington, DC 20852-2738

Direct tel: (412) 374-3382
Direct fax: (724) 591-3701
e-mail: russpa@westinghouse.com
Proj letter: SVP_SV0_003206

CAW-15-4130

April 17, 2015

APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

Subject: Transmittal of License Amendment Request APP-FSAR-GLN-352 Revision 0 (Westinghouse LAR-29, Southern LAR-15-005)

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-15-4130 signed by the owner of the proprietary information, Westinghouse Electric Company LLC. 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 Company.

Correspondence with respect to the proprietary aspects of the Application for Withholding or the Westinghouse Affidavit should reference CAW-15-4130, 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.

Very truly yours,

Paul A. Russ, Director
U.S. Licensing & Regulatory Support

CAW-15-4130
April 17, 2015

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 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
U.S. Licensing & Regulatory Support

(1) I am Director, U.S. Licensing & Regulatory Support, 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 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, 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-FSAR-GLN-352 (Modifications to and Relocation of DAS Processor Cabinets, Westinghouse LAR-29, Southern LAR-15-005), Revision 0 (Proprietary), for submittal to the Commission, being transmitted by Southern Nuclear Company letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse is that associated with the NRC pre-submittal review of the License Amendment Request APP-FSAR-GLN-352 Revision 0 (Westinghouse LAR-29, Southern LAR-15-005), 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/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).

COPYRIGHT NOTICE