



AUG 14 2014

Docket Nos.: 52-025  
52-026

ND-14-1228  
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:  
Compressed and Instrument Air System High Pressure Air Subsystem Changes (LAR-14-009)

Ladies and Gentlemen:

In accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC), the licensee for Vogtle Electrical 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 changes to related plant-specific Tier 1 information, with corresponding changes to the associated COL Appendix C 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 plant-specific Tier 1 (and COL Appendix C) text and UFSAR text and a figure related to the removal of a supply line from the Compressed and Instrument Air System (CAS) to the main generator breaker package.

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 UFSAR text and tables that are available for disclosure to the public.

This letter contains no regulatory commitments.

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SNC requests staff approval of the license amendment and exemption within one year of submittal (i.e., August 14, 2015). More detail related to the schedule for construction ties will be provided at a later date. SNC expects to implement the proposed amendment (through incorporation into the licensing basis documents) 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.

Ms. Amy G. Aughtman states that: she is a Licensing Manager of Southern Nuclear Operating Company; she is authorized to execute this oath on behalf of Southern Nuclear Operating Company; and to the best of her knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY



A. G. Aughtman

AGA/SSS/kms

Sworn to and subscribed before me this 14<sup>th</sup> day of August, 2014

Notary Public: Charlotte A. Graham

My commission expires: 11-30-15

- Enclosures: 1) Request for License Amendment, Compressed and Instrument Air System High Pressure Air Subsystem Changes (LAR-14-009)  
2) Request for Exemption, Compressed and Instrument Air System High Pressure Air Subsystem Changes  
3) Proposed Changes to the Licensing Basis Documents (LAR-14-009)

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**Southern Nuclear Operating Company**  
**Vogtle Electric Generating Plant Units 3 and 4**

**ND-14-1228**

**Enclosure 1**

**Request for License Amendment**  
**Compressed and Instrument Air System High Pressure Air Subsystem Changes**  
**(LAR-14-009)**

**(This enclosure contains eight pages including this cover page)**

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Pursuant to 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 change would revise the Combined Licenses (COLs) in regard to removing a supply line from the Compressed and Instrument Air System (CAS) to the generator breaker package.

The requested amendment requires a change to the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the incorporated plant-specific Design Control Document Tier 2 information (as detailed in Section 2), and involves changes to related plant-specific Tier 1 information, with corresponding changes to associated COL Appendix C information. This enclosure requests approval of the license amendment necessary to implement the Tier 2 and COL changes. Enclosure 2 requests the exemption necessary to implement the involved changes to the plant-specific Tier 1 information.

## **2. DETAILED DESCRIPTION**

The CAS consists of three subsystems: instrument air, service air, and high-pressure (HP) air. The instrument air and service air subsystems are not affected by the proposed change. The HP air subsystem supplies air to the main control room emergency habitability system (VES) and fire-fighting apparatus recharge station. The HP air subsystem provides a connection for refilling the VES storage tanks from an offsite source.

The (main) generator circuit breaker (GCB) is part of the Main Generation System (ZAS), and its design is not described within the licensing basis. The GCB is capable of carrying and interrupting the normal load current, and interrupting the maximum available root mean square (RMS) symmetrical and asymmetrical fault current produced by the main generator or the sum of the bolted three-phase fault currents associated with the plant motor house loads and the switchyard. The GCB and its associated equipment are referred to as the generator breaker package. The Main Generation System (ZAS) design allows for the use of an air-blast type GCB or a sulfur hexafluoride (SF6) gas type GCB. Therefore, CAS was designed to support the possibility of the existence of an air-blast type GCB, which requires an onsite backup compressed air source. The CAS HP air support line is being removed, because the GCB is to be a SF6 gas type.

Sulfur hexafluoride (SF6) is an inorganic and non-flammable gas, which is an excellent electrical insulator. SF6 is used as a gaseous dielectric medium for high-voltage circuit breakers, switchgear and other electrical equipment. The SF6 Gas type GCB uses SF6 gas to quench and cool the arc as well as prevent flashover, and does not use compressed air. Thus, an external HP air supply is not needed to support GCB operation. As a result, the HP air supply to the generator breaker package is being removed from the CAS design. Changing from an air-blast to a SF6 gas type GCB does not adversely affect any GCB function.

Because the generator breaker package no longer needs an external supply of HP air, the licensing basis CAS descriptions that address (i.e., refer to) the generator breaker package and its associated line (with a normally closed valve) from the CAS are removed from the CAS licensing basis information. Other than being shown as a line in UFSAR Figure 9.3.1-1 (Sheet 3), the description and function of removed CAS HP air supply to the generator breaker

package is beyond the level of detail in the UFSAR, thus no design function described in the licensing basis is affected. However, with respect to the CAS, the generator breaker package is referred to in three UFSAR text locations and one location within plant-specific Tier 1 information. Therefore, the referrals to the "generator breaker package" and "generator breaker" with respect to the CAS, are to be removed from the UFSAR and the plant-specific Tier 1 information.

#### Proposed Licensing Basis Change Descriptions

##### UFSAR (Tier 2):

UFSAR Section 9.3.1 addresses the CAS design, and its fifth sentence states:

"The high-pressure air subsystem supplies air to the main control room emergency habitability system (VES), the generator breaker package, and fire fighting apparatus recharge station."

It is proposed that "the generator breaker package," be deleted from the above sentence.

UFSAR Section 9.3.1.1.2, third paragraph, second sentence states that the CAS high-pressure air subsystem:

"provides clean, oil-free, high-pressure air to recharge the main control room emergency habitability system cylinders, refill the individual fire fighting breathing air bottles, and recharge the generator breaker reservoir."

It is proposed that the above sentence be edited to delete "and recharge the generator breaker reservoir."

The "High-Pressure Air Subsystem" portion of UFSAR subsection 9.3.1.2.1, second paragraph, second sentence states:

"This subsystem supplies air to the main control room emergency habitability system, the generator breaker, and the fire fighting apparatus recharge station."

It is proposed that "the generator breaker," be deleted from the above sentence.

In UFSAR Figure 9.3.1-1, Sheet 3, it is proposed that the supply line (with a normally closed valve) going to the "GEN BRKR AIR SPLY" be deleted.

##### Plant-specific Tier 1 and Corresponding COL Appendix C:

Section 2.3.15, Compressed and Instrument Air System, Design Description, first paragraph, last sentence states:

This subsystem supplies air to the main control room emergency habitability system, the generator breaker package, and the fire fighting apparatus recharge station.

It is proposed that "the generator breaker package," be deleted from the sentence.



### **3. TECHNICAL EVALUATION**

Note: The design details are provided in Section 2.

The above change does not involve any accident initiating component/system failure or event evaluated in the UFSAR, thus the probabilities of the accidents previously evaluated are not affected. The affected equipment does not affect or interact with safety-related equipment or a radioactive material barrier, and this activity does not involve the containment of radioactive material.

The affected equipment does not involve nor interface with any structure, system or component whose failure could initiate an accident. In addition, a new interface with components that contain radioactive material is not created. Therefore, the proposed change does not create a new fault or sequence of events that could result in a radioactive material release.

The proposed change does not affect any safety-related equipment or function. The UFSAR Chapters 6 and 15 analyses are not affected. The proposed change does not directly involve nor directly or indirectly affect a safety analysis or design basis acceptance limit/criterion. Therefore, no margin of safety is involved.

The proposed changes associated with this license amendment request do not affect the containment, control, channeling, monitoring, processing or releasing of radioactive and non-radioactive materials. The types and quantities of expected effluents are not changed, and no effluent release path is 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.

#### Summary

The plant licensing basis changes delete referrals to a CAS HP line that is not needed in the plant design. The SF6 gas type GCB meets the design function of the GCB. The proposed design change would not affect any safety-related equipment or function, a radioactive material barrier or a safety analysis. In addition, the nonsafety-related design functions described in the licensing basis would not be affected.

### **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 Combined License (COL). This activity involves a departure from COL Appendix C, Inspections, Tests, Analyses and Acceptance Criteria information and a corresponding change to plant-specific Tier 1 information, thus this activity requires a proposed 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 change involves a revision to plant-specific Tier 1 information (and corresponding COL Appendix C information), and thus requires NRC approval for the Tier 1 and associated Tier 2 departures.

#### **4.2 Precedent**

No precedent is identified.

#### **4.3 Significant Hazards Consideration Determination**

The proposed change would revise the Combined Licenses (COLs) in regard to removing an unneeded supply line from the Compressed and Instrument Air System (CAS) to the generator breaker package, and its associated text referrals.

The requested amendment requires changes to Updated Final Safety Analysis Report (UFSAR) Tier 2 information, which involve a change to plant-specific Tier 1 information and a corresponding change to COL Appendix C information.

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 proposed change deletes a nonsafety-related air supply line to the (main) generator circuit breaker (GCB) from the CAS. 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 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 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 change deletes a nonsafety-related air supply line to the GCB from CAS. No structure, system or component (SSC) or design function is affected, thus no equipment whose failure could initiate an accident is involved. No new interface with components that contain radioactive material is created. The

proposed change does not create a new fault or sequence of events that could result in a radioactive material release.

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

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

Response: No

The proposed change deletes a nonsafety-related air supply line to the GCB from CAS. The proposed changes do not affect any safety-related equipment or function. The UFSAR Chapters 6 and 15 analyses are not affected. No safety analysis or design basis acceptance limit/criterion is challenged or exceeded by the proposed changes, thus a margin of safety is not directly nor indirectly affected.

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**

In conclusion, 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. Pursuant to 10 CFR 50.92, the requested change does not involve a Significant Hazards Consideration.

**5. ENVIRONMENTAL CONSIDERATION**

The proposed change would revise the Combined Licenses (COLs) in regard to removing a supply line from the Compressed and Instrument Air System (CAS) to the generator breaker package, and its associated text referrals and one figure.

The requested amendment proposes departures from the Updated Final Safety Analysis Report (UFSAR) Tier 2 information, which involves a departure from plant-specific Tier 1 information and a corresponding change to COL Appendix C information.

A review has determined that the requested 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 20, or would change an inspection or surveillance requirement. However, a review of the anticipated construction and operational effects of the requested amendment has determined the requested 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 change deletes a nonsafety-related air supply line to the (main) generator circuit breaker (GCB) from CAS. 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 change deletes a nonsafety-related air supply line to the GCB from CAS. 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), an environmental impact statement or environmental assessment of the proposed exemption is not required.

## 6. REFERENCES

None

**Southern Nuclear Operating Company**  
**Vogtle Electric Generating Plant Units 3 and 4**

**ND-14-1228**

**Enclosure 2**

**Request for Exemption, Compressed and Instrument Air System High Pressure Air  
Subsystem Changes**

**(This enclosure contains six pages including this cover page)**

## **1.0 Purpose**

Southern Nuclear Operating Company (SNC) requests a permanent exemption from the provisions of 10 CFR Part 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 the Appendix, including certified information in DCD Tier 1. The Tier 1 information for which a plant-specific departure and exemption is being requested includes changes to remove a supply line from the Compressed and Instrument Air System (CAS) to the generator breaker package.

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 in subsection 2.3.15 to remove the reference to the generator breaker package in the following sentence: "The high-pressure air subsystem supplies air to the main control room emergency habitability system (VES), the generator breaker package, and fire fighting apparatus recharge station."

This request will provide for the application of 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**

SNC is the holder of Combined License Nos. NPF-91 and NPF-92, which authorizes construction and operation of two Westinghouse Electric Company AP1000 nuclear plants, named Vogtle Electric Generating Plant (VEGP) Units 3 and 4.

The Generator Circuit Breaker (GCB) and its associated equipment, referred to as the generator breaker package, are part of the Main Generation System (ZAS). The ZAS design allows for the use of an air-blast type GCB or a Sulfur Hexafluoride (SF6) Gas type GCB. The CAS high-pressure (HP) air subsystem was designed with an air support line for the possibility of the existence of an air-blast type GCB. An SF6 Gas type GCB is being utilized, and therefore, the HP air supply to the generator breaker package is being removed from the CAS design.

An exemption from elements of the AP1000 certification (Tier 1) design information to allow a departure from text related to the CAS is requested.

## **3.0 Technical Justification of Acceptability**

The SF6 Gas type GCB uses SF6 gas to quench and cool the arc as well as prevent flashover, and does not use compressed air. As a result, the HP air supply to the generator breaker package is being removed. The use of an SF6 Gas type GCB does not adversely affect any GCB function. Sulfur hexafluoride is an inorganic and non-flammable gas, which is an excellent insulator used as a gaseous dielectric medium for high-voltage circuit breakers, switchgear, and other electrical equipment.

The above change does not involve any accident initiating component/system failure or event evaluated in the UFSAR. The affected equipment does not affect or interact with safety-related

equipment or a radioactive material barrier, and this activity does not involve the containment of radioactive material.

The affected equipment does not involve or interface with any structure, system or component whose failure could initiate an accident. In addition, a new interface with components that contain radioactive material is not created. Therefore, the proposed change does not create a new fault or sequence of events that could result in a radioactive material release.

The proposed change does not affect any safety-related equipment or function. The UFSAR Chapters 6 and 15 analyses are not affected. The proposed change does not directly involve nor directly or indirectly affect a safety analysis or design basis acceptance limit/criterion.

#### **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. Since SNC has identified changes to the Tier 1 information related to the CAS as a result of the removal of the air supply line to the generator breaker package, an exemption to 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 design of the CAS satisfies the six criteria for granting specific exemptions, as described below.

##### **1. This exemption is authorized by law**

The NRC has authority under 10 CFR 50.12 and §52.7 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 Parts 50 and 52 upon a proper showing. No law exists that would preclude the changes covered by this exemption request.

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 Part 52, Appendix D, Section III.B would allow changes to elements of the plant-specific DCD Tier 1 information to depart from the AP1000 certified design information. The plant-specific Tier 1 DCD will continue to reflect the approved licensing basis for the Licensee and will maintain a consistent level of detail with that which is currently provided elsewhere in Tier 1 of the plant-specific DCD.

The change to the CAS High Pressure subsystem and removal of the compressed air supply line to the generator circuit breaker will not impact the ability of the components to perform their design functions. There is no change to plant systems or the response of systems to postulated accident conditions. There is no change to the predicted radioactive releases due to postulated accident conditions. The plant response to previously evaluated accidents or external events is not adversely affected, and the change described does not create any new accident precursors. Therefore, no adverse safety impact that would present any additional risk to the health and safety is present. The affected Design Description in the plant-specific Tier 1 DCD will also continue to provide the detail necessary to support the performance of the associated ITAAC.

Therefore, the requested exemption from 10 CFR Part 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 proposed exemption from requirements of 10 CFR Part 52, Appendix D, Section III.B would allow changes to elements of the plant-specific DCD Tier 1 information to depart from the AP1000 certified design. The exemption does not alter the design, function, or operation of any structures or plant equipment that is necessary to maintain a safe and secure status of the plant. The proposed exemption has no impact on plant security or safeguards procedures.

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 change to the CAS to remove the air supply line to the GCB maintains the design functions of the CAS and the ZAS. This change does not impact the ability of any structures, systems, or components to perform their functions or negatively impact safety. Accordingly, this exemption from the certification information will enable the Licensee to safely construct 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 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 this rule.

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

Based on the nature of the changes to the plant-specific Tier 1 information and the understanding that these changes do not adversely impact the function of the CAS or the generator breaker package, it is likely that other AP1000 licensees will request this exemption. However, if this is not the case, the special circumstances continue to outweigh any decrease in safety from the reduction in standardization because the key design functions of the CAS and ZAS associated with this request will continue to be maintained. This exemption request and the associated marked-up text demonstrate that the functionality of CAS and ZAS continue to be maintained following implementation of the change from the generic AP1000 DCD, thereby minimizing the safety impact resulting from any reduction in standardization.

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 requested exemption revises the plant-specific DCD Tier 1 information by removing a CAS air supply line to the GCB. The changes do not affect any safety-related equipment or function, and the design function of the CAS and ZAS (including the GCB) continue to be met. Because these functions continue to be met, there is not reduction 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.

## **7.0 Environmental Consideration**

A review has determined that the proposed exemption 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, the proposed exemption 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. Specific justification is provided in Section 5 of the corresponding License Amendment Request in Enclosure 1 of this letter. Accordingly, the proposed exemption meets the eligibility criterion 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 exemption.

## **8.0 Conclusion**

SNC requests a permanent exemption for an element AP1000 design certification information reflected in Tier 1 of the generic AP1000 DCD. The proposed changes to Tier 1 are related to the removal of the CAS HP air supply line to the GCB described in plant-specific Tier 1 DCD subsection 2.3.15. The exemption request meets the requirements of 10 CFR 52.63, "Finality of Design Certifications," 10 CFR 50.12, "Specific Exemptions," and 10 CFR Part 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.

**Southern Nuclear Operating Company**  
**Vogtle Electric Generating Plant Units 3 and 4**

**ND-14-1228**

**Enclosure 3**

**Proposed Changes to the Licensing Basis Documents**  
**(LAR-14-009)**

**(This enclosure contains three pages including this cover page)**

**Plant-Specific Tier 1 Subsection 2.3.15, Compressed and Instrument Air System:**

**(This change is also incorporated into VEGP Unit 3 and Unit 4 COLs, Appendix C)**

**[Plant-Specific Tier 1, pg. 2.3.15-1]**

**[VEGP Unit 3 COL, Appendix C, pg. C-270]**

**[VEGP Unit 4 COL, Appendix C, pg. C-270]**

**Revise the last sentence of the first paragraph as follows:**

The high-pressure air subsystem supplies air to the main control room emergency habitability system (VES), ~~the generator breaker package~~, and fire fighting apparatus recharge station.

**UFSAR Subsection 9.3.1, Compressed and Instrument Air System:**

**Revise Tier 2 information in the fifth sentence as follows:**

The high-pressure air subsystem supplies air to the main control room emergency habitability system (VES), ~~the generator breaker package~~, and fire fighting apparatus recharge station.

**UFSAR Subsection 9.3.1.1.2, Power Generation Design Basis:**

**Revise Tier 2 information in the second sentence of the third paragraph as follows:**

It provides clean, oil-free, high-pressure air to recharge the main control room emergency habitability system cylinders, ~~and~~ refill the individual fire fighting breathing air bottles, ~~and recharge the generator break reservoir.~~

**UFSAR Subsection 9.3.1.2.1, General Description:**

**Revise Tier 2 information in the second sentence of the second paragraph of the “High-Pressure Air Subsystem” portion as follows:**

This subsystem supplies air to the main control room emergency habitability system, ~~the generator breaker~~, and the fire fighting apparatus recharge station.

**UFSAR Figure 9.3.1-1, Sheet 3, Compressed & Instrument Air System Piping and Instrumentation Diagram (REF CAS 015):**

**Remove the generator breaker air supply line as shown below:**

