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10 CFR 2.101  
10 CFR 52.75

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

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application  
Revision 1 to the Application

Ladies and Gentlemen:

On March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) requesting combined licenses (COLs) for two AP1000 advanced passive pressurized water reactors designated Vogtle Electric Generating Plant (VEGP) Units 3 and 4. These new reactors are designated VEGP Units 3 and 4, and will be located on the existing VEGP site in Burke County, Georgia. The application was submitted in accordance with the requirements contained in 10 CFR 52, "Licenses, Certifications and Approvals for Nuclear Power Plants," and the associated material licenses under 10 CFR 30, 40, and 70. On May 30, 2008, the NRC notified SNC of its acceptance of the VEGP Units 3 and 4 COL Application and commencement of its detailed technical/environmental review of the application. This letter provides updates to the VEGP Units 3 and 4 COL Application required by 10 CFR 50.71(e)(3)(iii) and 10 CFR Part 52, Appendix D, Subsections X.B.1 and X.B.3.b. This update includes the annual update of the docketed Final Safety Analysis Report and the semi-annual update of the Departures Report (COL Application, Part 2 and Part 7, respectively). Additionally, Parts 1, 4, 5, 9, 10 and 11 of the COL Application are also updated. Revisions to the COL Application are identified by change bars positioned in the right hand margin for text and by the revision number for figures.

This application revision incorporates by reference Appendix D to 10 CFR 52 and the Westinghouse Electric Company's (Westinghouse's) application for amendment to portions of the AP1000 Design Control Document (DCD) Revision 17 (submitted September 22, 2008). This application revision also references the Vogtle Early Site Permit (ESP) Application, Revision 5, dated December 23, 2008. A Final Safety Evaluation Report for the ESP Application was issued by the NRC in February 2009. ESP action items and Permit Conditions identified in that report have been addressed in this COL Application revision.

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MRO

This update also includes changes identified by previous correspondence, including responses to requests for additional information (RAIs), through April 9, 2009 for site-specific material and through March 26, 2009 for standard material, as well as various other updates such as miscellaneous errata items, standard and site-specific changes necessary to reflect the incorporation by reference of the AP1000 generic DCD Revision 17, and standard and site-specific changes necessary to reflect the incorporation by reference of some template revisions submitted by the Nuclear Energy Institute (NEI). The changes due to NEI templates are only updated after the final, NRC approved version of the template is issued. In addition, this update includes changes related to the Fitness for Duty (FFD) Program, physical security during construction, physical security license conditions, and physical security inspections, tests, analyses and acceptance criteria (ITAAC) as identified in SNC correspondence submitted on April 1, 2009. Some standard content has been updated in the VEGP Units 3 and 4 COL Application through the errata process described in a Tennessee Valley Authority letter to the NRC dated March 14, 2008. These updates were reviewed and concurred with by the AP1000 Design Centered Working Group (DCWG).

This application is composed of several parts. Each of these is identified below along with indication of any revision contained in this document update.

- Part 1 – General and Financial Information (Revision 1, included)
- Part 2 – Final Safety Analysis Report (FSAR) (Revision 1, included)
- Part 3 – Environmental Report (ER) (Revision 0)
- Part 4 – Technical Specifications (Revision 1, included)
- Part 5 – Emergency Plan (EP) (Revision 1, included)
- Part 6 – LWA Request (Revision 0)
- Part 7 – Departures, Exemptions and Variances (Revision 1, included)
- Part 8 – Safeguards/Security Plans (Revision 1, submitted separately April 1, 2009)
- Part 9 – Withheld Information (Revision 1, included)
- Part 10 – Proposed License Conditions (Including ITAAC) (Revision 1, included)
- Part 11 – Enclosures (Revision 1, included)

This application revision contains no restricted data or national defense information requiring separation in accordance with 10 CFR 50.33(j).

Part 1 of this application revision contains a limited amount of proprietary information that was provided with Revision 0 of the COL Application in separate SNC letter AR-08-0436 dated March 28, 2008, and has not changed in this revision. Part 1 has been revised to include changes related to corporate officers and updates to contractual relationships.

Part 2 has been revised as described above to reflect changes due to site-specific and standard RAI responses, Revision 17 of the DCD, NEI Template revisions, FFD, physical security, and miscellaneous errata.

Part 4 has been revised to incorporate DCD and RAI-related changes and includes revision bars to show where revisions have been made to support NRC review. A clean copy will be prepared once the review is complete on a schedule necessary to support the issuance of the Combined Licenses.

Part 5 has been revised to include new and additional information in the Emergency Plan.

Part 7 of this application revision contains requests for certain exemptions, departures from the referenced DCD, and variances from the referenced ESP Application Site Safety Analysis Report (SSAR). Note that one request for exemption has been withdrawn.

Part 8 of this application revision contains safeguards information and it was provided in a separate submittal on April 1, 2009.

Part 9 of this application revision contains certain figures that are considered Sensitive Unclassified Non-Safeguards Information (SUNSI). Therefore, SNC requests that these figures be withheld from disclosure in accordance with 10 CFR 2.390(d).

Part 10 of this application revision includes a listing of ITAAC beyond those identified in Tier 1 of the AP1000 DCD, as well as proposed License Conditions.

Part 11 contains the Quality Assurance Manual for this application revision. This manual has been updated from the manual provided in ESP Application SSAR Appendix 17.1A.

Certain portions of the new 10 CFR 73 rule package, such as cyber security, and 10 CFR 52.80(d) are not reflected in this update due to ongoing interactions with the NRC concerning guidance and standard information being developed in coordination with NEI. An update is expected to be provided later this year to reflect these rule changes and the associated revisions to the corresponding NEI documents.

Additionally, this update does not address any main control room habitability changes resulting from NRC review of the AP1000 DCD Amendment, Revision 17. Westinghouse has submitted RAI responses (RAI-SRP6.4-SPCV-01 through -08) with commitments to update the AP1000 DCD at a later time to incorporate recent design enhancements. SNC will incorporate any relevant changes addressing main control room habitability as necessary, after the next AP1000 DCD revision.

A document identifying each change, as well as its source or basis, is being provided as an aid to the NRC reviewers and will be submitted by separate letter.

Consistent with common licensing practice, most of the application text is written in the present tense, active voice, including discussions of facilities and programs not yet built or implemented. Exceptions to this approach are the discussions of operating experience and completed studies and evaluations, which are written in the past tense. It should be understood, however, that statements regarding facilities (e.g., structures, systems and components) and pre-construction, pre-operational, and operational activities (e.g., procedures and programs) typically address activities that have not yet been performed and will not be performed until it is reasonable and appropriate to do so.

A complete set of application documents (identified above), with the exception of Part 8 and a small portion of Part 1, is provided in electronic file format on the enclosed disk. Appropriate pre-submission checks have been successfully performed on the files to ensure compliance with the guidelines provided on the NRC web site and they have been

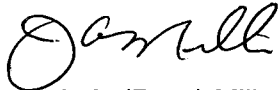
found acceptable for electronic submittal. The disk includes a "packing slip" describing its contents, pursuant to NRC instructions for electronic filing. In addition, by copy of this letter, 30 copies of the COL Application on DVD disks are being provided to the NRC VEGP COL Project Manager.

The SNC licensing contact for this application is W. A. Sparkman at (205) 992-5061 or A. G. Aughtman at (205) 992-5805.

Mr. J. A. (Buzz) Miller states he is an Executive Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY



Joseph A. (Buzz) Miller

Sworn to and subscribed before me this 22 day of May, 2009

Notary Public: Marie H. Bue

My commission expires: 04-01-13

JAM/BJS/dmw

Enclosure: Vogtle Electric Generating Plant Units 3 and 4 COL Application Revision 1

cc: Southern Nuclear Operating Company

Mr. J. H. Miller, III, President and CEO (w/o enclosure)  
Mr. J. T. Gasser, Executive Vice President, Nuclear Operations (w/o enclosure)  
Mr. D. H. Jones, Site Vice President, Vogtle 3 & 4 (w/o enclosure)  
Mr. T. E. Tynan, Vice President - Vogtle (w/o enclosure)  
Mr. D. M. Lloyd, Vogtle 3 & 4 Project Support Director (w/o enclosure)  
Mr. M. K. Smith, Technical Support Director (w/o enclosure)  
Mr. C. R. Pierce, Vogtle Development Licensing Manager (w/o enclosure)  
Mr. M. J. Ajluni, Nuclear Licensing Manager (w/o enclosure)  
Mr. J. M. Giddens, Quality Assurance Project Manager (w/o enclosure)  
Mr. W. A. Sparkman, COL Project Engineer  
Document Services RTYPE: AR01.1001  
File AR.01.02.06

Nuclear Regulatory Commission

Mr. L. A. Reyes, Region II Administrator  
Mr. F.M. Akstulewicz, Deputy Director Div. of Safety Systems & Risk Assess. (w/o enclosure)  
Ms. S. M. Coffin, AP1000 Manager of New Reactors (w/o enclosure)  
Mr. R. G. Joshi, Lead Project Manager of New Reactors (w/ 30 enclosure DVDs)  
Mr. B. Hughes, Project Manager of New Reactors (w/o enclosure)  
Ms. T. E. Simms, Project Manager of New Reactors (w/o enclosure)  
Mr. B. C. Anderson, Project Manager of New Reactors (w/o enclosure)  
Mr. M. M. Comar, Project Manager of New Reactors (w/o enclosure)  
Mr. M. D. Notich, Environmental Project Manager (w/o enclosure)  
Mr. J. H. Fringer, III, Environmental Project Manager (w/o enclosure)  
Mr. L. M. Cain, Senior Resident Inspector of VEGP

Georgia Power Company

Mr. O. C. Harper, IV, Vice President, Resource Planning and Nuclear Development (w/non-proprietary enclosure)

Oglethorpe Power Corporation

Mr. M. W. Price, Executive Vice President and Chief Operating Officer (w/non-proprietary enclosure)

Municipal Electric Authority of Georgia

Mr. S. M. Jackson, Vice President, Power Supply (w/non-proprietary enclosure)

Dalton Utilities

Mr. D. Cope, President and Chief Executive Officer (w/non-proprietary enclosure)

Burke County Chief Executive

Mr. James M. Dixon, Chairman, Burke County Board of Commissioners  
(w/non-proprietary enclosure)

Bechtel Power Corporation

Mr. J. S. Prebula, Project Engineer (w/o enclosure)  
Mr. R. W. Prunty, Licensing Engineer

Tetra Tech NUS, Inc.

Ms. K. K. Patterson, Project Manager

Shaw Stone & Webster, Inc.

Mr. K. B. Allison, Project Manager (w/o enclosure)

Mr. J. M. Oddo, Licensing Manager

Mr. D. C. Shutt, Licensing Engineer

Westinghouse Electric Company, LLC

Mr. N. C. Boyter, Vice President, AP1000 Vogtle 3 & 4 Project (w/o enclosure)

Mr. J. L. Whiteman, Principal Engineer, Licensing & Customer Interface

NuStart Energy

Mr. R. J. Grumbir (w/non-proprietary enclosure)

Mr. P. S. Hastings (w/non-proprietary enclosure)

Mr. E. R. Grant (w/non-proprietary enclosure)

Mr. B. Hirmanpour (w/non-proprietary enclosure)

Mr. N. Haggerty (w/non-proprietary enclosure)

Ms. K. N. Slays (w/non-proprietary enclosure)

**Southern Nuclear Operating Company**

**ND-09-0786**

**Enclosure**

**Vogtle Electric Generating Plant Units 3 and 4**

**COL Application**

**Revision 1**

ND-09-0786  
Enclosure  
Sheet 2 of 2

**Contact**

<b>Name</b>	Wes Sparkman
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<b>E-Mail Address</b>	wasparkm@southernco.com
<b>Phone Number</b>	205-992-5061

**Document Components:**

One DVD is included in this submission enclosure and it is labeled "Vogtle Electric Generating Plant, Units 3 and 4 COL Application - Revision 1, ND-09-0786 Enclosure." The contents of the DVD are specified on the packing slip for the DVD.

**NOTE: Part 9 of the COL Application contains Sensitive Unclassified Non-Safeguards Information (SUNSI) — Withhold Under 10 CFR 2.390(d).**