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

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application
Submittal 7 of 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. 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 this AP1000 Reference COL Application are identified by change bars positioned in the right hand margin.

This application revision incorporates by reference the Westinghouse Electric Company's (Westinghouse's) application for amendment to portions of the AP1000 Design Control Document (DCD) Revision 18 (submitted December 1, 2010).

This application revision continues to incorporate by reference the Vogtle Early Site Permit (ESP) Application, Revision 5, dated December 23, 2008, as approved by the NRC in the Vogtle Early Site Permit and Limited Work Authorization (ESP-004), dated August 26, 2009 (ADAMS Accession Numbers ML092290130 and ML092290157) including the three Amendments identified below:

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- Amendment 1 to Early Site Permit No. ESP-004, dated May 21, 2010 (ADAMS Accession Number ML101400509);
- Amendment 2 to Early Site Permit No. ESP-004, dated June 25, 2010 (ADAMS Accession Number ML101760370);
- Amendment 3 to Early Site Permit No. ESP-004, dated July 9, 2010 (ADAMS Accession Number ML101870522).

ESP action items and Permit Conditions have been addressed in this COL Application.

This submittal also includes changes identified by previous correspondence, including responses to Requests for Additional Information (RAIs) and Safety Evaluation Report Open Items (OIs) and other voluntary submittals not previously included, through January 25, 2011, for both standard and plant-specific 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 18, and standard and site-specific changes necessary to reflect the incorporation by reference of some template revisions submitted by the Nuclear Energy Institute (NEI).

In accordance with DC/COL-ISG-011, the COL application has been frozen. Changes to and corrections of errors in the COL application, including the referenced design control document, that qualify for deferral as provided in ISG-011 are being deferred.

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

- Part 1 – General and Financial Information (Revision 2, included)
- Part 2 – Final Safety Analysis Report (FSAR) (Revision 4, included)
- Part 3 – Environmental Report (ER) (Revision 1, previously submitted)
- Part 4 – Technical Specifications (Revision 2, included)
- Part 5 – Emergency Plan (EP) (Revision 4, included)
- Part 6 – LWA Request (Revision 2, previously submitted)
- Part 7 – Departures, Exemptions and Variances (Revision 4, included)
- Part 8 – Safeguards/Security Plans (Revision 2, previously submitted on July 30, 2010)
- Part 9 – Withheld Information (Revision 3, included)
- Part 10 – Proposed License Conditions (Including ITAAC) (Revision 4, included)
- Part 11 – Enclosures (Revision 3, included)

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

Part 1 has been revised to reflect references to Revision 18 of the AP1000 DCD and to specify applicable dates for organizational and financial information.

Part 2 has been revised as described above to reflect changes due to site-specific and standard RAI and OI responses, revisions to the DCD, and miscellaneous errata. The FSAR incorporates by reference the AP1000 DCD, Revision 18, which was developed and submitted consistent with approved regulatory processes by Westinghouse.

Part 4 has been revised to reflect changes to the generic Technical Specifications and Bases as provided in DCD Revision 18.

Part 5 has been revised to include new and additional information in the Emergency Plan to reflect changes due to site-specific RAI responses.

Part 7 has been revised to reflect DCD Revision 18, including two new departures; one related to the waterproof membrane material with an associated revised variance (not previously submitted) and one related to the voltage regulating transformer. Additionally, one new minor revision (not previously submitted) is made to the departure related to the potable water system.

Part 9 has been revised to reflect changes due to site-specific and standard RAI and OI responses, revisions of the DCD, and miscellaneous errata, and specifically to include the Mitigative Strategies Description and Plans.

Part 10 has been revised to reflect changes due to site-specific and standard RAI and OI responses, revisions of the DCD, and miscellaneous errata.

Part 11 has been revised to include information related to the Mitigative Strategies Description and Plans and the Special Nuclear Material (SNM) Material Control and Accounting Program Description.

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. B. L. Ivey states he is a 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 developed by Southern Nuclear Operating Company and set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY



B. L. Ivey

Sworn to and subscribed before me this 31st day of January, 2011

Notary Public: Nancy Louise Henderson

My commission expires: March 23, 2014

BLI/BJS

Enclosure: Vogtle Electric Generating Plant Units 3 and 4 COL Application Submittal 7

cc: Southern Nuclear Operating Company

Mr. J. H. Miller, III, President and CEO (w/o enclosure)
Mr. J. A. Miller, Executive Vice President, Nuclear Development (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, AP1000 Licensing Manager (w/o enclosure)
Mr. M. J. Ajluni, Nuclear Licensing Manager (w/o enclosure)
Mr. J. D. Williams, Vogtle 3 & 4 Site Support Manager (w/o enclosure)
Mr. J. T. Davis, Vogtle 3 & 4 Site Licensing Manager (w/o enclosure)
Mr. J. M. Giddens, Quality Assurance Project Manager (w/o enclosure)
Mr. T. C. Moorer, Environmental Affairs, Chemistry, and HP Manager (w/o enclosure)
Mr. W. A. Sparkman, COL Project Engineer
Ms. A. G. Aughtman, AP1000 Licensing Project Engineer (w/o enclosure)
Document Services RTYPE: GOV0208
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Nuclear Regulatory Commission

Mr. V. M. McCree, Region II Administrator
Mr. F. M. Akstulewicz, Deputy Director Div. of Safety Systems & Risk Assess. (w/o encl.)
Mr. R. G. Joshi, Lead Project Manager of New Reactors (w/ 30 non-public enclosure DVDs and 12 public enclosure DVDs)
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)
Ms. S. Goetz, Project Manager of New Reactors (w/o enclosure)
Mr. J. M. Sebrosky, Project Manager of New Reactors (w/o enclosure)
Mr. D. C. Habib, Project Manager of New Reactors (w/o enclosure)
Ms. D. L. McGovern, Project Manager of New Reactors (w/o enclosure)
Ms. T. L. Spicher, Project Manager of New Reactors (w/o enclosure)
Ms. M. A. Sutton, Environmental Project Manager (w/o enclosure)
Mr. M. D. Notich, Environmental Project Manager (w/o enclosure)
Mr. L. M. Cain, Senior Resident Inspector of VEGP 1 & 2
Mr. J. D. Fuller, Senior Resident Inspector of VEGP 3 & 4

Georgia Power Company

Mr. T. W. Yelverton, Nuclear Development Director (w/public enclosure DVD)
Ms. A. N. Faulk, Nuclear Regulatory Affairs Manager (w/public enclosure DVD)

Oglethorpe Power Corporation

Mr. M. W. Price, Executive Vice President and Chief Operating Officer (w/public encl. DVD)
Mr. K. T. Haynes, Director of Contracts and Regulatory Oversight (w/public enclosure DVD)

Municipal Electric Authority of Georgia

Mr. J. E. Fuller, Senior Vice President, Chief Financial Officer (w/public enclosure DVD)
Mr. S. M. Jackson, Vice President, Power Supply (w/public enclosure DVD)

Dalton Utilities

Mr. D. Cope, President and Chief Executive Officer (w/public enclosure DVD)

Burke County Chief Executive

Mr. R. Wayne Crockett, Chairman, Burke County Board of Commissioners (w/public encl. DVD)

Bechtel Power Corporation

Mr. J. S. Prebula, Project Engineer (w/o enclosure)

Mr. R. W. Prunty, Licensing Engineer (w/public enclosure DVD)

Tetra Tech NUS, Inc.

Ms. K. K. Patterson, Project Manager (w/public enclosure DVD)

Shaw Stone & Webster, Inc.

Mr. B. Davis, Vogtle Project Manager (w/o enclosure)

Mr. J. M. Oddo, Licensing Manager (w/public enclosure DVD)

Westinghouse Electric Company, LLC

Mr. S. D. Rupprecht, Vice President of Regulatory Affairs & Strategy (w/o enclosure)

Mr. R. Buechel, Consortium Project Director Vogtle Units 3 & 4 (w/o enclosure)

Mr. R. F. Ziesing, Director, US Licensing, NPP (w/public enclosure DVD)

Mr. S. A. Bradley, Vogtle Project Licensing Manager (w/public enclosure DVD)

Mr. M. A. Melton, Manager, Regulatory Interfaces (w/public enclosure DVD)

Mr. D. A. Lindgren, Principal Engineer, AP1000 Licensing and Customer Interface (w/public enclosure DVD)

NuStart Energy

Mr. R. J. Grumbir (w/public enclosure DVD)

Mr. P. S. Hastings (w/public enclosure DVD)

Mr. E. R. Grant (w/public enclosure DVD)

Mr. B. Hirmanpour (w/public enclosure DVD)

Mr. N. Haggerty (w/public enclosure DVD)

Ms. K. N. Slays (w/public enclosure DVD)

Other NuStart Energy Associates

Ms. M. C. Kray, NuStart (w/public enclosure DVD)

Mr. S. P. Frantz, Morgan Lewis (w/public enclosure DVD)

Mr. J. A. Bailey, TVA (w/public enclosure DVD)

Ms. A. L. Sterdis, TVA (w/public enclosure DVD)

Mr. M. Vidard, EDF (w/public enclosure DVD)

Mr. W. Maher, FP&L (w/public enclosure DVD)

Mr. K. Hughey, Entergy (w/public enclosure DVD)

Mr. N. T. Simms, Duke Energy (w/public enclosure DVD)

Mr. G. A. Zinke, NuStart & Entergy (w/public enclosure DVD)

Mr. R. H. Kitchen, PGN (w/public enclosure DVD)

Ms. A. M. Monroe, SCE&G (w/public enclosure DVD)

Mr. T. Miller, DOE/PM (w/public enclosure DVD)

Southern Nuclear Operating Company

ND-11-0183

Enclosure

Vogtle Electric Generating Plant Units 3 and 4

COL Application Submittal 7

Contact

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Document Components:

One DVD is included in this submission enclosure and it is labeled "Vogle Electric Generating Plant, Units 3 and 4 COL Application, Submittal 7, ND-11-0183 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).