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ND-09-1090

U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application
Response to Bellefonte Units 3 and 4 Safety Evaluation Report Open Items for Chapter 12

Ladies and Gentlemen:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application for combined licenses (COLs) for proposed Vogtle Electric Generating Plant (VEGP) Units 3 and 4 to the U.S. Nuclear Regulatory Commission (NRC) for two Westinghouse AP1000 reactor plants, in accordance with 10 CFR Part 52. As a result of the NRC's detailed review of the initial AP1000 Reference COL application (Bellefonte Units 3 and 4), the NRC has written a safety evaluation report (SER) with open items for the subject chapter. VEGP is addressing the open items identified in the SER in the enclosure to this letter as the new AP1000 Reference COL applicant. For completeness, each open item is identified, but responses are provided only for the items impacting standard information or otherwise resulting in standard changes for the AP1000 COL applications. Confirmatory Item 12.1-1, adoption of the latest approved revision of NEI 07-03, will be addressed by a separate letter.

If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061.

DO92
LIRD

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

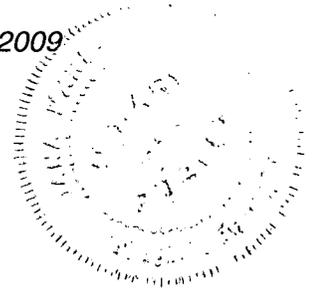


Joseph A. (Buzz) Miller

Sworn to and subscribed before me this 16th day of July, 2009

Notary Public: Dana M. Williams

My commission expires: 12/29/2010



JAM/BJS/dmw

Enclosure: Response to R-COLA SER with Open Items, Chapter 12

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 and 4 (w/o enclosure)
Mr. T. E. Tynan, Vice President - Vogtle (w/o enclosure)
Mr. M. K. Smith, Technical Support Director
Mr. D. M. Lloyd, Vogtle 3 & 4 Project Support Director
Mr. C. R. Pierce, Nuclear Development Licensing Manager
Mr. M. J. Ajluni, Nuclear Licensing Manager
Mr. W. A. Sparkman, COL Project Engineer
Document Services RTYPE: AR01.1053
File AR.01.02.06

Nuclear Regulatory Commission

Mr. L. A. Reyes, Region II Administrator (w/o enclosure)
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
Mr. B. Hughes, Project Manager of New Reactors
Ms. T. E. Simms, Project Manager of New Reactors
Mr. B. C. Anderson, Project Manager of New Reactors
Mr. M. M. Comar, Project Manager of New Reactors
Mr. M. D. Notich, Environmental Project Manager
Mr. J. H. Fringer, III, Environmental Project Manager
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/o enclosure)

Oglethorpe Power Corporation

Mr. M. W. Price, Chief Operating Officer (w/o enclosure)

Municipal Electric Authority of Georgia

Mr. S. M. Jackson, Vice President, Power Supply (w/o enclosure)

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Ms. K. K. Patterson, Project Manager

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Westinghouse Electric Company, LLC

Mr. W. E. Cummins, Vice President of Regulatory Affairs and Standardization
Mr. N. C. Boyter, Consortium Project Director Vogtle Units 3 & 4 (w/o enclosure)
Mr. S. A. Bradley, Vogtle Project Licensing Manager
Mr. R. B. Sisk, Manager, AP1000 Licensing and Customer Interface
Mr. J. L. Whiteman, Principal Engineer, Licensing & Customer Interface
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NuStart Energy

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(w/o Enclosure)

Mr. R. H. Kitchen, PGN
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Mr. R. Reister, DOE/PM

Southern Nuclear Operating Company

ND-09-1090

Enclosure

Response to R-COLA SER with Open Items

Chapter 12

| <u>Open Item</u> | <u>Response</u> |
|------------------|-------------------------|
| 12.01-01 | Standard - See enclosed |
| 12.03-01 | Standard - See enclosed |
| 12.04-01 | Standard - See enclosed |

eRAI Tracking No. 3276

NuStart Qb Tracking No. 3513

NRC SER OI Number 12.01-01:

STD COL 12.1-1 includes a commitment to the use of a "Generic FSAR Template Guidance for Ensuring That Occupational Radiation Exposures Are as Low as Is Reasonably Achievable (ALARA)," as an operational program document, based on draft NEI Template 07-08, Revision 2. The NEI template presents the functional elements of an ALARA program, which, if met, would demonstrate compliance with 10 CFR 20.1101 and 10 CFR 19.12. Accordingly, BLN FSAR Section 12.1, STD COL 12.1-1 needs to be updated as to its commitment to the final NEI ALARA template if it is accepted by the NRC staff. Therefore, the staff cannot find the applicant's reference to the NEI 07-08 template to be acceptable until the staff completes its review of this template as a method to meet the regulatory requirements of an ALARA program, and the BLN FSAR is updated to reference the final version of this template. This is identified as **Open Item 12.1-1**.

SNC Response:

The revisions to the COL application associated with this open item cannot be completed until the NEI 07-08 template has been approved. Once this occurs, NEI must issue the approved (or -A) version of the template. Once the approved version of the template is issued, a supplemental response to this item will be provided that incorporates the appropriate changes into the COL application.

This response is expected to be STANDARD for the S-COLAs.

Associated VEGP COL Application Revisions:

To be provided in a future supplemental response.

eRAI Tracking No. 0613, 0863

NuStart Qb Tracking No. 3514

NRC SER OI Number 12.03-01:

The applicant stated in a letter dated September 22, 2008, that it will adopt the NEI 08-08, "Generic FSAR Template Guidance for Life Cycle Minimization of Contamination," Revision 0 template. If approved by the NRC, the applicant will provide additional description of site specific design features and procedures for operation that minimize contamination of the facility, site, and environment. NEI 08-08 is currently under staff review. This is identified as **Open Item 12.3-1**.

SNC Response:

The revisions to the COL application associated with this open item cannot be completed until the NEI 08-08 template has been approved. Once this occurs, NEI must issue the approved (or -A) version of the template. Once the approved version of the template is issued, a supplemental response to this item will be provided that incorporates the appropriate changes into the COL application.

This response is expected to be STANDARD for the S-COLAs.

Associated VEGP COL Application Revisions:

To be provided in a future supplemental response.

eRAI Tracking No. 2753

NuStart Qb Tracking No. 3515

NRC SER OI Number 12.04-01:

Section 4.5 of Part 3, Environmental Report (ER), of the BLN COL application provides an analysis of the expected average annual dose that will be received by a construction worker at BLN Unit 4 during the construction period. Section 4.5.6 of the ER states that there will be a radiation protection and ALARA program for BLN Unit 4 construction workers that will meet the requirements of 10 CFR 20.1302. Section 4.6 of the ER Table 4.6-1 describes specific measures and controls. Contrary to the ER, BLN COL FSAR Section 12.4 does not contain any description of a construction worker program to address minimizing exposure during BLN Unit 4 construction. In RAI 12.3-12.4-6, the applicant was requested to describe the program that will ensure the construction workers will be monitored and that exposures will be minimized and maintained ALARA in accordance with 10 CFR 20.1101(b). This is identified as **Open Item 12.4-1**.

SNC Response:

Construction workers are considered as members of the public. However, additional protective measures are taken in order to minimize exposure during construction from the operating plant. The operating plant Radiation Protection program will include monitoring of construction areas (e.g., placement of TLDs).

The FSAR will be revised as shown under the associated COLA revision section to include the construction worker dose monitoring described above.

This response is expected to be STANDARD for the S-COLAs.

Associated VEGP COL Application Revisions:

COLA Part 2, FSAR Chapter 12, Subsection 12.4.1.9, will be revised to include the following new subsection (12.4.1.9.4.5 for VEGP) at the end of the section with a Left Margin Annotation (LMA) of STD SUP 12.4-1:

STD SUP 12.4-1 12.4.1.9.x Operating Unit Radiological Surveys

The operating unit conducts radiological surveys in the unrestricted and controlled area and radiological surveys for radioactive materials in effluents discharged to unrestricted and controlled areas in implementing 10 CFR 20.1302. These surveys demonstrate compliance with the dose limits of 10 CFR 20.1301 for construction workers.