

**Southern Nuclear  
Operating Company, Inc.**  
40 Inverness Center Parkway  
Birmingham, Alabama 35242



**DEC 30 2009**

Docket Nos.: 52-025  
52-026

ND-09-2078

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  
Response to Bellefonte Units 3 and 4 Safety Evaluation Report Open Items for Chapter 9

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 standard 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.

If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061 or Ms. Amy Aughtman at (205) 992-5805.

D092  
NRD

Mr. Charles R. Pierce states he is the AP1000 Licensing Manager 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

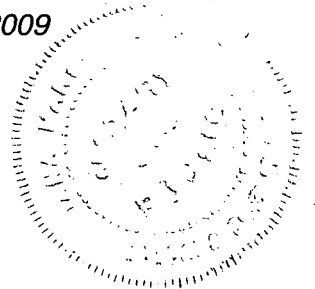
*Charles R. Pierce*

Charles R. Pierce

Sworn to and subscribed before me this 30<sup>th</sup> day of December, 2009

Notary Public: Dana M. Williams

My commission expires: 12/29/2010



CRP/BJs/dmw

Enclosure: Response to R-COLA SER with Open Items, Chapter 9

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  
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 (w/o enclosure)  
Mr. D. M. Lloyd, Vogtle 3 and 4 Project Support Director (w/o enclosure)  
Mr. M. J. Ajluni, Nuclear Licensing Manager  
Mr. J. D. Williams, Vogtle 3 & 4 Site Support Manager  
Mr. J. T. Davis, Vogtle 3 & 4 Site 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  
Mr. F.M. Akstulewicz, Deputy Director Div. of Safety Systems & Risk Assess. (w/o enclosure)  
Mr. R. G. Joshi, Lead 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  
Ms. S. Goetz, Project Manager of New Reactors  
Mr. J. M. Sebrosky, Project Manager of New Reactors  
Mr. D. C. Habib, Project Manager of New Reactors  
Ms. D. L. McGovern, Project Manager of New Reactors  
Ms. T. L. Spicher, Project Manager of New Reactors  
Ms. M. A. Sutton, Environmental Project Manager  
Mr. M. D. Notich, 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

Oglethorpe Power Corporation

Mr. M. W. Price, Chief Operating Officer  
Mr. K. T. Haynes, Director of Contracts and Regulatory Oversight

Municipal Electric Authority of Georgia

Mr. S. M. Jackson, Vice President, Power Supply

Dalton Utilities

Mr. D. Cope, President and Chief Executive Officer

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. W. E. Cummins, Vice President of Regulatory Affairs and Standardization  
(w/o enclosure)

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

Mr. D. A. Lindgren, Principal Engineer AP1000 Licensing and Customer Interface

NuStart Energy

Mr. R. J. Grumbir

Mr. E. R. Grant

Mr. B. Hirmanpour

Mr. N. Haggerty

Ms. K. N. Slays

Other NuStart Energy Associates

Ms. M. C. Kray, NuStart

Mr. S. P. Frantz, Morgan Lewis

Mr. P. S. Hastings, NuStart & Duke Energy

Mr. J. A. Bailey, TVA

Ms. A. L. Sterdis, TVA

Mr. J. P. Berger, EDF

Mr. M. W. Gettler, FP&L

Mr. P. Hinnenkamp, Entergy

Mr. G. D. Miller, PG&N

Mr. M. C. Nolan, Duke Energy

Mr. N. T. Simms, Duke Energy

Mr. G. A. Zinke, NuStart & Entergy

Mr. R. H. Kitchen, PGN

Ms. A. M. Monroe, SCE&G

Mr. T. Beville, DOE/PM

**Southern Nuclear Operating Company**

**ND-09-2078**

**Enclosure**

**Response to R-COLA SER with Open Items**

**Chapter 9**

<u>Open Item</u>	<u>Response</u>
09.01-01	Standard - See enclosed
09.01-02	Standard - See enclosed
09.01-03	Standard - See enclosed
09.01-04	Standard - See enclosed
09.02-01	Plant Specific – Not included
09.02-02	Standard - See enclosed

**eRAI Tracking No. 3829**

**NuStart Qb Tracking No. 3976**

**NRC SER OI Number 09.01-01:**

This proposed wording matches the proposed revised text for AP1000 COL Information Item 9.1-7. However, the proposed wording is still a restatement of the COL information item and does not contain the level of detail needed by the staff to evaluate the adequacy of the Metamic monitoring program. Therefore, in RAI 9.1.2-2, the staff requested that the applicant describe the methodology and acceptance criteria for the tests listed, provide the corrective action requirements and provide the administrative controls applicable to the program. Additionally, the applicant should confirm the number of coupons and the withdrawal schedule will be the same as recommended in the DCD or provide an alternative. The staff has identified this as **Open Item 9.1-1** to track resolution of this issue and to ensure that the additional details are included in the BLN COL FSAR.

**SNC Response:**

**Number of Coupons & Withdrawal Schedule** – The number of coupons and the withdrawal schedule will be the same as stated in DCD Revision 17, Subsection 9.1.2.2.1. Since DCD Section 9.1 is incorporated by reference into the FSAR, no additional FSAR change would be required.

**Methodology and Acceptance Criteria, Corrective Actions & Administrative Controls** – Since the Metamic coupon monitoring program has not yet been established, the level of detail requested is not completely available. As stated in FSAR Subsection 9.1.6, a Metamic monitoring program will be implemented when the plant is placed into commercial operation. This program will include methodology to be employed, acceptance criteria, corrective actions and a description of administrative controls based on vendor recommendations and industry operating experience. Per verbal discussion with the NRC Staff, the COLA will be revised as shown in the COL Application Revisions section below to include: A) a requirement for inclusion of methodology, acceptance criteria and corrective action in the Metamic coupon monitoring program, and B) adding the Metamic monitoring program to COLA Part 10, License Condition 6 for Operational Program Readiness.

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

**Associated VEGP COL Application Revisions:**

1. COLA Part 2, FSAR Chapter 9, Subsection 9.1.6, will be revised to add the following to the end of the STD COL 9.1-7 description.

The program will include the methodology and acceptance criteria for the tests listed and provide corrective action requirements based on vendor recommendations and industry operating experience. The program will be implemented through plant procedures.

ND-09-2078  
Enclosure  
Response to SER OIs for Chapter 9

2. COLA Part 10, Proposed License Conditions (including ITAAC), License Condition 6, Proposed License Condition for Operational Program Readiness, will be revised to add the following line item:

#- the spent fuel rack Metamic coupon monitoring program implementation.

(Note -# will be replaced with the next sequential number in the COLA).

**ASSOCIATED ATTACHMENTS/ENCLOSURES:**

None

**eRAI Tracking No. 0290**

**NuStart Qb Tracking No. 3977**

**NRC SER OI Number 09.01-02:**

Although the response to RAI 9.1.4-1 states that the plant inspection program schedule information will be provided when available, BLN COL FSAR Table 1.8-202 lists STD COL 9.1-5 as having been completed by the applicant. The staff notes that STD COL 9.1-5 has not been fully addressed. The applicant is asked to revise BLN COL FSAR Table 1.8-202 to commit in the BLN COL FSAR to implementing the plant inspection program for the LLHS before receipt of fuel. This is **Open Item 9.1-2**.

**SNC Response:**

As discussed with the NRC staff, a change will be made to FSAR Subsection 9.1.4.4 in response to this Open Item instead of Table 1.8-202. FSAR Subsection 9.1.4.4 will be revised to include an inspection of the light load handling system (LLHS) prior to receipt of fuel as shown in the Application Revisions section below.

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

**Associated VEGP COL Application Revisions:**

COLA Part 2, FSAR Chapter 9, Subsection 9.1.4.4, will be revised to add the following sentence at the end of the STD COL 9.1-5 description.

The light load handling program, including system inspections, is implemented prior to receipt of fuel onsite.

**ASSOCIATED ATTACHMENTS/ENCLOSURES:**

None



**eRAI Tracking No. 0291**

**NuStart Qb Tracking No. 3978**

**NRC SER OI Number 09.01-03:**

In its response to RAI 9.1.5-1, the applicant stated that details of the implementation milestones for the development of heavy load handling procedures and related engineering documents are not currently available, nor are the implementation milestones expected to be available until after a detailed construction schedule has been developed. The applicant stated that appropriate scheduling information will be provided, when available, to the NRC as necessary to support timely completion of inspection and audit functions. The applicant did not provide any schedule for when the heavy load handling program will be completed for the implementation of an approved heavy load handling program (including OHLHS procedures). The applicant is asked to revise BLN COL FSAR Table 1.8-202 to commit in the BLN COL FSAR to implementing the heavy load handling program before receipt of fuel. This is **Open Item 9.1-3**.

**SNC Response:**

As discussed with the NRC staff, a change will be made to FSAR Subsection 9.1.5.4 in response to this Open Item instead of Table 1.8-202. FSAR Subsection 9.1.5.4 will be revised to include an inspection of the overhead heavy load handling systems prior to receipt of fuel as shown in the Application Revisions section below.

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

**Associated VEGP COL Application Revisions:**

COLA Part 2, FSAR Chapter 9, Subsection 9.1.5.4, will be revised to add the following sentence at the end of the STD COL 9.1-5 description.

The overhead heavy load handling program, including system inspections, is implemented prior to receipt of fuel onsite.

**ASSOCIATED ATTACHMENTS/ENCLOSURES:**

None

**eRAI Tracking No. 0291**

**NuStart Qb Tracking No. 3979**

**NRC SER OI Number 09.01-04:**

In the RAI response, the applicant stated that the schedule for issuing the procedures that implement the plant inspection program for the OHLHS are not yet available. The applicant also stated that implementation milestones are not expected to be available until after a detailed construction schedule has been developed, but will be provided to the NRC when available to support timely completion of inspection and audit functions. Although the response to RAI 9.1.5-2 states that the plant inspection program schedule information will be provided when available, BLN COL FSAR Table 1.8-202 lists STD COL 9.1-5 as having been completed by the applicant. The staff notes that STD COL 9.1-5 has not been fully addressed. The applicant is asked to revise BLN COL FSAR Table 1.8-202 to commit in the BLN COL FSAR to implementing the plant inspection program for the OHLHS before receipt of fuel. This is **Open Item 9.1-4**.

**SNC Response:**

As stated in the responses to Open Item 09.01-03 (above), the overhead heavy load handling systems program will be implemented prior to fuel receipt onsite and the FSAR will be revised to include this commitment. In addition, FSAR Subsection 9.1.5.4 currently states that this program is implemented through procedures, therefore no additional changes are needed to establish a milestone for implementation of the plant inspection program for the OHLHS. The procedures required for performing inspections will be developed and implemented prior to receipt of fuel onsite.

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

**Associated VEGP COL Application Revisions:**

No COLA revisions have been identified associated with this response.

**ASSOCIATED ATTACHMENTS/ENCLOSURES:**

None

**eRAI Tracking No. 4109**

**NuStart Qb Tracking No. 3981**

**NRC SER OI Number 09.02-02:**

The staff's evaluation of the groundwater monitoring program is provided in Chapter 12 of this SER. However, chapter 12 of this SER has identified additional site procedures for decommissioning records which are part of compliance for 10 CFR 20.1406 and has been identified as **Open Item 12.3-1**. Because there is no interconnection with any system that contains potentially radioactive fluids as indicated in BLN COL FSAR Section 9.2.11.1.1, the staff concludes that the requirements of 10 CFR 20.1406 are satisfied and considers this aspect of RAI 01-02 and RAI 9.2.1-4 are resolved pending resolution of **Open Item 9.2-2**.

**SNC Response:**

Per discussion with the NRC Staff, this Open Item is tracking closure of Open Item 12.3-1. On October 30, 2009, Southern Nuclear Operating Company submitted letter number ND-09-1770 addressing Chapter 12 Open Items, including standard Open Item 12.3-1. In summary, the response provided standard COLA changes for the incorporation of the approved version of NEI 08-08A, Generic FSAR Template Guidance for Life Cycle Minimization of Contamination, into the FSAR. Therefore, Open Item 9.2-2 is considered fully addressed by the response to Open Item 12.3-1 and no further actions or COLA changes are needed.

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

**Associated VEGP COL Application Revisions:**

No COLA revisions have been identified associated with this response.

**ASSOCIATED ATTACHMENTS/ENCLOSURES:**

None