

PMVogtleCOLPEm Resource

From: Joshi, Ravindra
Sent: Tuesday, August 11, 2009 3:05 PM
To: VogtleCOL Resource
Subject: FW: SNC Letter ND-09-1171 transmitting Response to Bellefonte Safety Evaluation Report Open Items for Chapter 01
Attachments: ND-09-1171 BLN-SER-OI-Ch 1 Resp.pdf

From: Williams, Dana M. [mailto:DANAWILL@SOUTHERNCO.COM]
Sent: Wednesday, July 29, 2009 5:19 PM
To: Reyes, Luis; Akstulewicz, Frank; Joshi, Ravindra; Hughes, Brian; Simms, Tanya; Anderson, Brian; Comar, Manny; Notich, Mark; Cain, Loyd
Subject: SNC Letter ND-09-1171 transmitting Response to Bellefonte Safety Evaluation Report Open Items for Chapter 01

An electronic copy of Southern Nuclear's letter, ND-09-1171 , dated July 29, 2009 is attached. In addition, a hard copy has been transmitted to the NRC Document Control desk via FedEx.

Thank you,

Dana M. Williams

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Nuclear Development
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Subject: FW: SNC Letter ND-09-1171 transmitting Response to Bellefonte Safety Evaluation Report Open Items for Chapter 01
Sent Date: 8/11/2009 3:04:53 PM
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From: Joshi, Ravindra

Created By: Ravindra.Joshi@nrc.gov

Recipients:
"VogtleCOL Resource" <VogtleCOL.Resource@nrc.gov>
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Options
Priority: Standard
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Recipients Received:

J. A. "Buzz" Miller
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JUL 29 2009

Docket Nos.: 52-025
52-026

ND-09-1171

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 Safety Evaluation Report Open Items for Chapter 01

Ladies and Gentlemen:

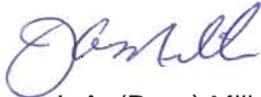
By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application for combined licenses (COLs) for proposed Vogtle Electric Generating Plant (VEGP) Units 3 and 4 to the U.S. Nuclear Regulatory Commission (NRC) for two Westinghouse AP1000 reactor plants, in accordance with 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. The open items identified as plant specific will be addressed on the Bellefonte Units 3 and 4 docket by the Tennessee Valley Authority following the SER identified NRC Staff action.

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

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 29 day of July, 2009

Notary Public: Glenn H. Buie

My commission expires: 04/01/2013

JAM/BJS/dmw

Enclosure: Response to R-COLA SER with Open Items, Chapter 01

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, AP1000 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. 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)

Dalton Utilities

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

Bechtel Power Corporation

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

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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

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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

(w/o Enclosure)

Mr. R. H. Kitchen, PGN
Ms. A. M. Monroe, SCE&G
Mr. R. Reister, DOE/PM

Southern Nuclear Operating Company

ND-09-1171

Enclosure 1

Response to R-COLA SER with Open Items

Chapter 01

<u>Open Item</u>	<u>Response</u>
01-01	Standard - See enclosed
01-02	Standard - See enclosed
01.04-01	Plant-Specific – Bellefonte (not included)
01.04-02	Standard - See enclosed
01.04-03	Standard - See enclosed
01.04-04	Standard - See enclosed
01.05-01	Standard - See enclosed

eRAI Tracking No. 2610

NuStart Qb Tracking No. 3429

NRC SER OI Number 01-01:

In accordance with 10 CFR 52.83, “Finality of referenced NRC approvals; partial initial decision on site suitability,” if the application for a COL references a DC rule, the scope and nature of matters resolved in the DC for the application and any combined license issued are governed by 10 CFR 52.63, “Finality of standard design certifications.”

Based on the finality afforded to referenced certified designs, the scope of this COL application review as it relates to the referenced certified design² is limited to items that fall outside the scope of the certified design (e.g., COL information items, design information replacing conceptual design information, and programmatic elements that are the responsibility of the COL). TVA may need to supplement this application, based on the outcome of the AP1000 DC amendment rulemaking. This activity is being tracked as Open Item 1-1. The staff will supplement this SER as necessary to reflect the final disposition of the DC application.

SNC Response:

The applicant is following the review of the AP1000 Design Control Document (DCD) and is modifying its COL application at the appropriate time to be consistent with the DCD. As indicated in the open item discussion, it may be necessary to supplement the COL application based on the outcome of the AP1000 final design certification amendment. Such revisions to the COL application associated with this open item cannot be completed until the review is sufficiently complete to determine the necessary revisions. As a minimum, a revision will be necessary to incorporate by reference the final version of the design certification document that is certified by the amendment rulemaking. The applicant agrees to make the necessary COL application changes at the appropriate time.

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. 2640

NuStart Qb Tracking No. 3430

NRC SER OI Number 01-02:

The proposed license conditions are evaluated throughout this SER. The staff has not yet determined which BLN COL FSAR commitments require a license condition. The decision on which BLN COL FSAR commitments, if any, should become license conditions is Open Item 1-2.

SNC Response:

As indicated in the open item discussion, the NRC Staff is still determining which COL commitments require a license condition. It is understood that revisions to the COL application associated with this determination may be necessary following the NRC decision. The applicant agrees to make the necessary COL application changes following agreement on the wording for appropriate license conditions.

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

Associated VEGP COL Application Revisions:

To be provided in a future supplemental response (if needed).

eRAI Tracking No. 1425

NuStart Qb Tracking No. 3519

NRC SER OI Number 01.04-02:

The staff finds TVA's responses to RAIs 1-5 and 1-7 acceptable. However, the staff notes that BLN COL FSAR Table 1.9-201 and Appendix 1AA will most likely need additional changes based on the staff's evaluation of the RGs in this SER and TVA's response to RAI 1-11. The NRC staff is still evaluating TVA's response to RAI 1-11 and has not yet made a determination of whether the response is acceptable. This is Open Item 1.4-2.

SNC Response:

The revisions to the COL application associated with this open item cannot be completed until the NRC Staff review has been approved. Once this occurs, and the necessary revisions are understood by the applicant, the applicant agrees to make the necessary COL application revisions.

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

Associated VEGP COL Application Revisions:

To be provided in a future supplemental response (if needed).

eRAI Tracking No. 2997

NuStart Qb Tracking No. 3432, 3525

NRC SER OI Number 01.04-03:

In this section of the application, the applicant provides an assessment of the potential hazards due to construction of one unit on SSCs important to safety for an operating unit, in accordance with 10 CFR 52.79(a)(31).

• STD SUP 1.10-1

The NRC staff reviewed the information in BLN COL FSAR Table 1.10-201, identifying the potential hazards from construction activities, BLN COL FSAR Table 1.10-202 that cross-references the construction hazard with the impacted SSCs, and BLN COL FSAR Table 1.10-203, identifying the specific managerial and administrative controls to preclude or mitigate the construction hazard. There is the potential that review of other areas of the application could impact the hazards and management programs identified in the Bellefonte application. For example, site runoff from construction of Unit 4, if not properly controlled, could impact the operation of Unit 3. Site runoff is evaluated in Section 2.4 of this report. The staff has not yet completed its review of this application against the requirements of 10 CFR 52.79(a)(31). This is part of Open Item 1.4-3.

• BLN SUP 1.10-1

The supplemental information states that the power blocks for BLN 3 and 4 have a minimum separation of at least 800 feet between plant centerlines and notes that new units SSCs important to safety are described in BLN COL FSAR Chapter 3 and the LCOs for BLN 3 and 4 are identified in Part 4 of the COL application. In the standard portion of FSAR Section 1.10, there is a discussion that the primary consideration in setting the 800 foot separation distance is the space needed to support plant construction via the use of a heavy-lift crane.

The site-specific supplemental information is provided to supplement the standard information above and provides with specificity the location of the SSCs and LCOs required by 10 CFR 52.79(a)(31). The staff has not yet completed its review of this application against the requirements of 10 CFR 52.79(a)(31). This is Open Item 1.4-3.

SNC Response:

This item is understood to simply be a placeholder for the NRC Staff to complete their review of the information already provided in the COL application. As such, no information requests have as yet been identified.

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.

eRAI Tracking No. 2997

NuStart Qb Tracking No. 3433

NRC SER OI Number 01.04-04:

In the application, TVA stated that controls within Section 1.10 of the FSAR are not required unless there is an operating unit on the site. To clarify this FSAR commitment, the staff requests TVA to revise the application to positively state these programs will be in place when there is an operating unit on the site. This is Open Item 1.4-4.

SNC Response:

The COL application will be revised as shown in the Application Revisions section below to positively state these programs will be in place when there is an operating unit on the site.

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

Associated VEGP COL Application Revisions:

COLA Part 2, FSAR Chapter 1, Subsection 1.10.3 will be revised to add the following new paragraph at the end of the subsection (under the LMA of STD SUP 1.10-1):

The above discussed controls to eliminate or mitigate construction hazards that could potentially impact operating unit SSCs important to safety are in place when there is an operating nuclear unit on the site.

eRAI Tracking No. 2566

NuStart Qb Tracking No. 3428

NRC SER OI Number 01.05-01:

In TVA's letter transmitting Revision 1 of the COL application, dated October 30, 2007, and in Part 1, "General and Financial Information," of the application TVA requested material licenses for receipt, possession and use of source, byproduct and special nuclear material in accordance with Commission regulations in 10 CFR Parts 30, 40, and 70. The reviews conducted to support the issuance of the COL encompass those necessary to support granting 10 CFR Parts 30, 40, and 70 licenses. The standard license that the staff intends to issue is based on operating licenses for nuclear power plants licensed in accordance with 10 CFR Part 50. The staff is considering the following standard license provisions for the Bellefonte combined license as it relates to authorization pursuant to regulations in Parts 30, 40, and 70:

"Subject to the conditions and requirements incorporated herein, the Commission hereby licenses TVA:

- (1) (i) pursuant to the Act and 10 CFR Part 70, to receive and possess at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, described in the final safety analysis report (FSAR), as supplemented and amended;
(ii) pursuant to the Act and 10 CFR Part 70, to use special nuclear material as reactor fuel, after the finding in Section 2.D(1) of this license has been made (note: 2D(1) is a reference to the 10 CFR 52.103(g) finding), in accordance with the limitations for storage and amounts required for reactor operation, and described in the FSAR, as supplemented and amended;
- (2) pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (3) pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required, any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (4) pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility."

The staff notes that FSAR Table 13.4-201 of the BLN 3 and 4 COL application provides milestones for various operational programs to be implemented. Important milestone dates for various operational programs that support issuance of the license and requirements relative to 10 CFR Parts 30, 40, and 70 include the following:

- Radiation Protection Program (including ALARA principles) – prior to initial receipt of byproduct, source, or special nuclear materials (excluding exempt quantities as described in 10 CFR 30.18)
- Fire Protection Program – prior to receipt of fuel onsite
- Security Program including physical security, safeguards contingency programs, training and qualification program – prior to receipt of fuel onsite

These implementation milestones are discussed in Section 13.4 of this SER.

In addition to the evaluation of the implementation milestones noted above, the staff's evaluation of the radiation protection program that supports the issuance of the 10 CFR Parts 30, 40, and 70 licenses is addressed in Chapter 12 of this SER. Additional staff evaluations that support the issuance of the 10 CFR Part 70 license are addressed in Chapter 9 of this SER (i.e., new fuel storage, spent fuel storage, and fire protection programs) and in the staff's evaluation of TVA's security program. The staff finds that the information in the Bellefonte COL application to support granting of the 10 CFR Part 70 license mentioned as part of the license above is sufficient, pending resolution of the open items in this report related to new and spent fuel, fire protection program, security program, and the implementation of the fire protection and security programs. However, TVA needs to provide a discussion of which parts of its COL application other than the reference to the radiation protection program provide sufficient information to support compliance with the applicable portions of 10 CFR Part 30 and 40, prior to the 10 CFR 52.103(g) finding. This is Open Item 1.5-1.

SNC Response:

FSAR Chapter 11, Radioactive Waste Management, Chapter 12, Radiation Protection, and Chapter 13, Conduct of Operations, provide sufficient information to support compliance with the applicable portions of 10 CFR Parts 30 and 40. The application information in these Parts requests information related to material and its purposes, radiation safety personnel, personnel training, facilities and equipment, waste management, and the radiation safety program in general.

Specifically:

- Information related to radiation sources containing byproduct, source, and special nuclear material, including their purposes, storage, and security of the sources, is provided in FSAR Section 12.2. This section also addresses procedures specifically related to such sources.
- Information related to the organizational structure of the applicant, including those responsible for source, byproduct and special nuclear material radiation safety, is provided in FSAR Section 13.1.
- Information related to training of personnel, including those responsible for source, byproduct and special nuclear material radiation safety, is provided in FSAR Section 13.2.
- Information related to facilities and equipment, is provided in FSAR Section 12.5.
- Information related to the radiation safety program, is provided in FSAR Sections 11.5, 12.1, 12.3 and 12.5.
- Information related to the fire protection program, is provided in FSAR Subsection 9.5.1.
- Information related to the relevant waste management processes, is provided in FSAR Section 11.4.
- Information related to plant procedures, including those used to control source, byproduct and special nuclear material, is provided in FSAR Section 13.5.
- Information related to security, including safeguards of source, byproduct and special nuclear material, is provided in FSAR Section 13.6.
- Information related to source, byproduct and special nuclear material program milestones is provided in FSAR Section 13.4 (as modified by BLN-RAI-LTR-109 Supp and as shown below in the Applications Revisions section).

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

Associated VEGP COL Application Revisions:

1. COLA Part 2, FSAR Chapter 13, Section 13.4, Table 13.4-201, item 8, Fire Protection Program, will be revised (to add the following new milestone):

(portions applicable to SNM)	10 CFR 30.32 10 CFR 40.31	Prior to initial receipt of byproduct source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)	10 CFR 30.32(a) 10 CFR 40.31(a)
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2. COLA Part 2, FSAR Chapter 13, Section 13.4, Table 13.4-201, item 11, Non Licensed Plant Staff Training Program, will be revised (to add the following new milestone):

(portions applicable to SNM)	10 CFR 30.32 10 CFR 40.31	Prior to initial receipt of byproduct source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)	10 CFR 30.32(a) 10 CFR 40.31(a)
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3. COLA Part 2, FSAR Chapter 13, Section 13.4, Table 13.4-201, item 14, Emergency Planning, will be revised (to add the following new milestone):

(portions applicable to SNM)	10 CFR 30.32 10 CFR 40.31	Prior to initial receipt of byproduct source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)	10 CFR 30.32(a) 10 CFR 40.31(a)
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4. COLA Part 2, FSAR Chapter 13, Section 13.4, Table 13.4-201, item 15, Security Program, will be revised (to add the following new milestone):

(portions applicable to SNM)	10 CFR 30.34 10 CFR 40.41	Prior to initial receipt of byproduct source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)	10 CFR 30.32(a) 10 CFR 40.31(a)
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5. COLA Part 10, Proposed License Condition 3, Operational Program Implementation, will be revised to add the following new milestones:

- C.2 – Fire Protection Program (applicable portions)
- C.3 – Non Licensed Plant Staff Training Program (applicable portions)
- C.4 – Emergency Planning (applicable portions)
- C.5 – Security Program (applicable portions)