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

Subject: William States Lee III Nuclear Station – Project Number 742
Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC
Response to RIS 2007-08, Updated Licensing Submittal Information to
Support the Design-Centered Licensing Review Approach

Reference: NRC Regulatory Issue Summary 2007-08, *Updated Licensing Submittal
Information to Support the Design-Centered Licensing Review Approach*;
dated April 16, 2007

In the reference Regulatory Issue Summary (RIS), the Nuclear Regulatory Commission (NRC) requested the submittal of updated information regarding the scheduling of new reactor application submissions, and the extent to which they will support the NRC's design-centered review approach, and updated information regarding addressee activities related to safety and quality assurance requirements, environmental reviews, construction plans and preparation, and other pre-application activities.

Duke Energy continues to support and endorse the design-centered review approach proposed by the NRC. Responses to the specific bulleted items from the RIS are provided in Enclosure 1 for the William States Lee III (Lee Nuclear) COL Project. As indicated in the enclosure, this information has been coordinated with the other declared AP1000 applicants as of the date of this letter (each of whom is a NuStart member).

If you have any questions or need any additional information, please contact Peter Hastings at (980) 373-7820.

Sincerely,

Bryan J. Dolan

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Enclosure: Response to RIS-2007-08

xc: S. M. Coffin, NRC/HQ
J. L. Starefos, NRC/HQ
W. D. Travers, NRC/RII

Licensing Submittal Information

1. a) Will the applicants be organized into DCWGs?

Response: Duke Energy (Duke) is a member of NuStart and a part of the AP1000 Design-Centered Work Group (DCWG).

- b) If so, what is the membership and who is the single point of contact designated for each DCWG?

Response: At present, all announced applicants who have indicated their intent to apply for a COL utilizing the AP1000 Design Control Document (DCD) are members of the AP1000 DCWG. As previously identified in NuStart's response to RIS 2006-006, Peter Hastings of Duke is the AP1000 Reference Plant (Bellefonte Site) Licensing Lead for NuStart and the NRC single point of contact for the AP1000 DCWG.

- c) Have protocols been developed to provide coordinated responses for RAIs with generic applicability to a design center?

Response: The AP1000 DCWG does intend to coordinate RAI responses, as appropriate, and is currently developing protocols for this purpose.

2. Which applicant referencing the design will be designated as the R-COL applicant?

Response: The Tennessee Valley Authority (TVA) will be the AP1000 DCWG R-COL applicant for the Bellefonte (BLN) site.

3. a) When (month and year) will each of the COL applications be submitted for review?

Response: Duke intends to submit the Lee Nuclear Station COL application at approximately the same time as the R-COL application in late October 2007. This date is the current NuStart planning basis and is predicated in part on the successful completion of applicable regulations and guidance. NuStart will communicate promptly to the NRC Staff any changes to this planning basis, and expects to confirm this date approximately 90 days prior to the application submittal date.

- b) In addition, what are the design, site location, and the number of units at each site?

Response: The Lee Nuclear Station application is for two certified Westinghouse AP1000 units, located at the Lee Nuclear Site in Cherokee County, SC. The two AP1000 units are designated as Lee Nuclear Station Units 1 and 2.

4. What portions of the COL application (chapters, sections, subsections) will be relying on the DC?

Response: Most portions of the application for an AP1000 design will be relying on the design certification (DC) to varying extents. For example, every chapter of the COL application Part 2 (plant-specific DCD including the plant-specific Technical Specifications) will rely on the AP1000 DCD and will be supplemented as necessary to address additional needed information such as COL information items. Much information in Part 3 (the Environmental Report (ER)) will also rely on DCD information, e.g., design descriptions and the DCD Appendix 1B severe accident mitigation design

alternatives (SAMDA) discussion. The COL application Part 10 will also rely on the Tier 1 ITAAC and associated ITAAC design descriptions. Each Part of the COL application is addressed in the Standardization Matrix included as Attachment 1 of the NuStart reference plant (Bellefonte) RIS 2007-08 response, with section-by-section details provided for Part 2 of the COLA.

5. What portions of the R-COL application (chapters, sections, subsections) will be referenced (i.e., replicated verbatim) in S-COL applications, and what portions of the application are likely to be site-specific?

Response: Details in response to this request are also provided in the Standardization Matrix included as Attachment 1 of the NuStart reference plant (Bellefonte) RIS 2007-08 response for each part of the COL application, with section-by-section details provided for Part 2.

6. a) When (month and year) will applicants complete the detailed design information to be verified under those inspections, tests, analyses, and acceptance criteria that are directed at certification information (design acceptance criteria)?

Response: The detailed design information to be verified under inspections, tests, analyses, and acceptance criteria (ITAAC) that are directed at certification information (i.e., DAC) will be complete at varying times, depending on the availability of the information. Some DAC resolution information is currently being developed and is anticipated to be available at the time of COL application submittal, but other DAC resolution information will not be completed until after the COL is issued.

- b) Will this information be completed in a design certification amendment application, in the R-COL application, in S-COL applications, in post-COL Final Safety Analysis Report updates, or a combination thereof?

Response: The detailed design information to be verified under ITAAC will be completed in a combination of a DC amendment application, the R-COL and S-COL applications, post-COL application updates, and post-COL notifications. The design information intended to resolve the Piping DAC will be included in the amendment to the AP1000 Design Certification. In addition, design information to partially resolve the Instrumentation and Control System and Human-System Interface DAC will also be included in the amendment.

Site and Environmental Information

- 7) a) Do any applicants intend to apply for an ESP prior to submitting their COL applications?

Response: Duke does not intend to submit an ESP application prior to submitting the Lee Nuclear Station COL application. (Note that Duke separately has identified other possible future ESPs for different sites, but no decisions have been made regarding pursuit of those ESPs or dates for when they would be submitted.)

b) If so, when (month and year) would the proposed ESP be submitted to the NRC for review?

Response: Not applicable to the Lee Nuclear Station application.

8) For ESP applicants, is the applicant going to be seeking approval of either "proposed major features of the emergency plans" per 10 CFR 52.17(b)(2)(i), or "proposed complete and integrated emergency plans" per 10 CFR 52.17(b)(2)(ii)?

Response: Not applicable to the Lee Nuclear Station application.

9) Do the applicants plan to submit an environmental report or limited work authorization request prior to other portions of the COL application, and if so, when (month and year)?

Response: Duke does not intend to submit an environmental report or limited work authorization request prior to submitting the COL application. Duke is evaluating the need for a limited work authorization accompanying the COL application, and will notify the NRC in the event such a need is identified.

10) What scope and schedule do applicants project for site characterization activities, such as core borings and testing of core samples?

Response: The scope of site characterization activities related to the COL application is generally complete for the Lee Nuclear Site.

11) What interactions have taken place with local and State authorities and other Federal agencies to support licensing new reactors?

Response: Various interactions have taken place with local and State authorities and other Federal agencies to support licensing new reactors. Duke has contacted the following Federal, State and local agencies to support this application:

- U.S. Army Corps of Engineers – Contacted regarding wetlands delineation of the site
- U.S. Fish and Wildlife Service – Contacted regarding rare, threatened or endangered species on the site
- South Carolina Department of Health and Environmental Control – Contacted regarding permits for observation wells, waste generator identification number, and schedule for submission of air, water and waste permit applications
- South Carolina Department of Natural Resources – Contacted regarding rare, threatened or endangered species of State concern and water management in the Broad River
- South Carolina Department of History and Archives, State Historic Preservation Office – Contacted regarding cultural resources on the site and associated rail and electric transmission corridors
- South Carolina Office of Regulatory Support – Contacted regarding schedule for an application for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the station and associated transmission route(s)
- South Carolina Department of Emergency Management – Contacted regarding the station Emergency Plan
- North Carolina Department of Emergency Management – Contacted regarding the station Emergency Plan

- Cherokee County Emergency Management – Contacted regarding the station Emergency Plan
- York County Emergency Management – Contacted regarding the station Emergency Plan
- Cleveland County (NC) Emergency Management – Contacted regarding the station Emergency Plan
- Cherokee County Department of Building Safety – Contacted regarding building permits for the station

In addition to Federal, State and local agencies, this project has contacted the following tribal organizations regarding cultural resources on the site.

- Carolina Indian Heritage Association
- Catawba Indian Tribe
- Eastern Band of Cherokee Indians
- Eastern Shawnee Tribe of Oklahoma
- Lower Eastern Cherokee Nation
- Pine Hill Indian Community
- United South and Eastern Federation of Tribes

Plant Construction Requirements Information

- 12) a) Who are the vendors and consultants that are assisting in the preparation of the application?

Response: Duke has procured the services of Enercon Services, Inc., and other major subcontractors including MACTEC Engineering and Consultants; William Lettis & Associates; Burns and Roe Enterprises Inc. Duke has also procured the services of Facilities Planning and Siting, LLC (for transmission siting).

- b) The NRC requests that the potential applicants submit a list of entities that are providing input to and are preparing the COL application under a QA program.

Response: The entities that are providing input to and are preparing the COL application, certain aspects of which are conducted under a QA program, include Duke, Enercon Services, William Lettis and Associates, Burns & Roe, and MACTEC. William Lettis and Associates and Burns & Roe QA activities are performed under the Enercon QA Program, with the exception of William Lettis and Associates field activities, which are performed under the MACTEC QA Program. The activities supporting development of this application are being conducted, where applicable, in accordance with the existing requirements of the NuStart QA Plan that meets 10 CFR 50 Appendix B (including use of individual NuStart member utilities' QA Programs, e.g., for performance of supplier audits). Enercon has been audited in accordance with Duke's and NuStart's (and/or NuStart member utilities') QA Program requirements and is on Duke's approved suppliers list. The procurement of additional sub-tier vendors is being performed in accordance with each of these vendors' QA Program requirements for procured services and equipment (where applicable). Duke QA activities are performed in accordance with the Duke QA Topical and include audits and collection of metrological data for site characterization. Duke's QA work includes procurement, oversight, and QA infrastructure (e.g., records), as well as some data collection activities.

13 a) What information do the applicants have regarding the timing of construction, the ordering of long lead time components, and other commitments to construction?

Response: Duke's integrated resource plan includes continued work in support of bringing new nuclear generation on line by 2016. Duke is working with Westinghouse and Shaw Stone and Webster to develop construction schedules supporting commercial operation in advance of this date. The schedule for ordering long lead time components is also under development. Duke expects to provide planning information for construction and for ordering long lead components to the NRC as the plans develop.

b) Furthermore, what vendors will be designing, manufacturing, fabricating, and testing safety-related components for eventual plant construction?

Response: The prime vendors for the AP1000 are Westinghouse and Shaw Stone and Webster. A partial list of potential vendors that may be selected to perform design, manufacturing, fabricating, and testing of safety-related components is provided in Attachment 2 of the NuStart reference plant (Bellefonte) RIS 2007-08 response. Most vendors will not be determined until a full commitment to construction is made.