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March 19, 2009

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

Subject: Duke Energy Carolinas, LLC.  
William States Lee III Nuclear Station - Docket Nos. 52-018 and 52-019  
AP1000 Combined License Application for the  
William States Lee III Nuclear Station Units 1 and 2  
Response to Request for Additional Information  
Ltr# WLG2009.03-17

Reference: Letter from J.M. Muir (NRC) to B.J. Dolan (Duke Energy), *Request for Additional Information Regarding the Environmental Review of Combined License Application for William States Lee Nuclear Station Units 1 and 2*, dated August 21, 2008

This letter provides the Duke Energy response to the Nuclear Regulatory Commission's (NRC) request for the following additional information (RAI) items included in the referenced letter:

RAI 59, Aquatic Ecology  
RAI 60, Aquatic Ecology  
RAI 96, Ecology - Aquatic and Terrestrial

The response to these NRC requests is addressed in a separate enclosure, which also identifies associated changes, when appropriate, that will be made in a future revision of the Williams States Lee III Nuclear Station application.

If you have any questions or need any additional information, please contact Peter S. Hastings, Nuclear Plant Development Licensing Manager, at 980-373-7820.

Bryan J. Dolan  
Vice President  
Nuclear Plant Development

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NRO

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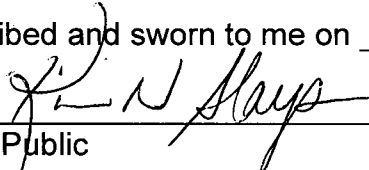
Enclosure:

- 1) Response to RAI 59 and RAI 60, Aquatic Ecology; and RAI 96, Ecology – Aquatic and Terrestrial

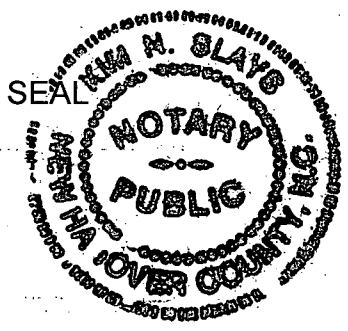
AFFIDAVIT OF BRYAN J. DOLAN

Bryan J. Dolan, being duly sworn, states that he is Vice President, Nuclear Plant Development, Duke Energy Carolinas, LLC, that he is authorized on the part of said Company to sign and file with the U. S. Nuclear Regulatory Commission this supplement to the combined license application for the William States Lee III Nuclear Station and that all the matter and facts set forth herein are true and correct to the best of his knowledge.

  
\_\_\_\_\_  
Bryan J. Dolan

Subscribed and sworn to me on March 19, 2009  
  
\_\_\_\_\_  
Notary Public

My commission expires: April 19, 2010



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xc (w/o enclosure):

Loren Plisco, Deputy Regional Administrator, Region II  
Stephanie Coffin, Branch Chief, DNRL  
Robert Schaaf, Branch Chief, DSER

xc (w/ enclosure):

Linda Tello, Project Manager, DSER  
Brian Hughes, Senior Project Manager, DNRL

**Lee Nuclear Station Response to Request for Additional information (RAI)**

**RAI Letter Dated:** August 21, 2008

**Reference NRC RAI Numbers:** ER RAI 59, ER RAI 60, ER RAI 96

**NRC RAI:**

- ER RAI 59: Provide information on the expected 'normal' and expected "maximum" extent, frequency, and duration of drawdown of Make-Up Pond B? What periods of record have been analyzed to answer this question? If analysis is limited to the 81 year record, would these values change if a shorter, more recent record was examined (e.g. the last 10, 20, or 30 years)?
- ER RAI 60: Provide a discussion on the "normal" and "maximum" time frames for recharge of Make-Up Pond B following water usage during low flow conditions? During the site audit discussions in April/May 2008, Duke representatives were asked to generate a scenario that shows duration and frequency of drawdown.
- ER RAI 96: Describe any plans Duke has to develop additional backup water reserves in addition to Make-Up Pond B to lessen the potential for plant shut downs and to avoid water availability in the future. During the site audit (April/May 2008), the Applicant indicated that they were looking at other options to increase water storage capacity beyond Make-Up Pond B. Provide a summary of the other options Duke is considering in addition to Make-Up Pond B as cooling water during low flow conditions.

**Duke Energy Response:**

As discussed in detail below, Duke intends to submit a supplement to the Lee Environmental Report (ER) that will provide additional information regarding water usage. Duke expects that the information requested in RAIs 59, 60, and 96 will be fully addressed by this supplement.

Duke committed in the ER to suspend operations if low flow conditions dictated. As discussed with the NRC staff, there is no associated safety issue, because the AP1000 design does not rely on offsite water for safety. At the time of submittal of the Lee Nuclear COL application, available data implied the potential for shutdown at a rate that constituted an acceptably low commercial risk. The ER also discussed Duke's intention to participate in regional efforts to manage Broad River water resources, in the interest of mitigating commercial risks associated with the potential for plant shutdowns in the future.

The NRC received scoping comments from the State of South Carolina on the need for additional off-stream storage. Concurrently, the region experienced an extended drought in 2007-2008. In response to these events, Duke explored potential supplemental water resources. Consequently, Duke is proposing construction of an additional make-up pond as a source of supplemental water to mitigate the potential loss of generating capacity that could result from an extended drought.

Duke plans to provide a supplement to the ER to address the cumulative impact associated with the additional make-up pond. Duke recognizes the need to discuss planning details with the NRC to understand possible impacts to the NRC review schedule.

Duke's planning milestones are as follows:

By March 31, 2009, Duke expects to submit Revision 1 of the ER. This revision will incorporate conforming changes resulting from RAI responses; update the need for power, alternative technologies, and cost information to conform to the 2008 Duke Energy Carolinas Integrated Resource Plan provided to the NRC (Letter No. WLG2008.11-02) on November 4, 2008; and update the Environmental Report impacts to reflect an increase in projected construction workforce (discussed in prior RAI responses).

By September 30, 2009, Duke expects to provide a supplement to the ER that discusses the cumulative impact of creating an additional supplemental water make-up pond. This supplement will provide ecological and cultural resource surveys on property to which Duke currently has access, and reconnaissance-level site characterization information, based on information in various publicly accessible sources, for a small percentage of property to which Duke does not yet have access. Reconnaissance-level information for this small percentage of property will consist of summaries from state and federal databases, information collected from windshield surveys, etc.

Duke believes the accessible property is representative of the entire area impacted by the new pond. Further, the accessible property also includes the majority of the undeveloped land and the majority of the affected stream. Finally, most of the land that Duke has not yet acquired is partially developed. Consequently, Duke's characterization of the environmental impacts for the additional make-up pond should result in information sufficient to enable the NRC Staff to evaluate the new pond as a cumulative impact.

(Note that, in addition to the ER supplement discussed above, Duke also expects to supplement the Final Safety Analysis Report with a description of changes to FSAR 2.4, "Hydrologic Engineering," associated with the additional make-up pond. Duke expects to submit the supplemental FSAR information by July 31, 2009.)

Duke welcomes the opportunity to meet with the NRC staff to further discuss planning details for this ER supplement and will support participation in a phone call or meeting at the NRC's convenience.

**Associated Revisions to the Lee Nuclear Station Combined License Application:**

None

**Associated Enclosures:**

None