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March 18, 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# WLG2009.03-15

Reference: Letter from L.M. Tello (NRC) to B.J. Dolan (Duke Energy), *Request for Additional Information Regarding the Environmental Review of the Combined License Application for William States Lee III Nuclear Station, Units 1 and 2*, dated January 21, 2009

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

RAI 111, Radiological Health

The response to this NRC request is addressed in the enclosure which also identifies any associated changes that will be made in a future revision of the William States Lee III Nuclear Station application.

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

Bryan J. Dolan
Vice President
Nuclear Plant Development

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NPO

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Enclosure:

1. Response to RAI 111, Radiological Health

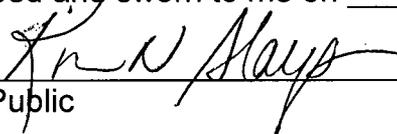
AFFIDAVIT OF BRYAN J. DOLAN

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 18, 2009



Notary Public

My commission expires: April 19, 2010



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xc (wo/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: January 21, 2009

Reference NRC RAI Number: ER RAI 111

NRC RAI:

LADTAP input parameters given for population exposures via swimming and boating in Table 5.4-2 conflict with the Maximally Exposed Individual calculations, which use defaults of zero hours swimming and boating. How is the pathway described in Section 5.4.1.1, referring to immersion in contaminated water as a pathway, used in the calculation of individual dose?

LADTAP input parameters are given for population exposures via swimming and boating in Table 5.4-2. However, the Maximally Exposed Individual calculations use the LADTAP defaults of zero hours swimming and boating.

Duke Energy Response:

Section 5.4.1.1 provides a list of important liquid effluent exposure pathways that should be considered when calculating radiation doses to members of the public. The liquid effluent exposure pathways identified in Section 5.4.1.1 are listed consistent with Regulatory Guide 1.109 guidance. Note that the exposure times for the average individual and the maximum individual from the boating and swimming pathways are not provided in Regulatory Guide 1.109.

River shoreline activities (i.e., sunbathing and fishing) as well as swimming and boating activities are all included in population dose calculations performed for the Lee Nuclear Station. Although these liquid pathways do not contribute significantly to the total liquid pathway population exposure results presented in Table 5.4-9, these pathways are included to present a complete description of pertinent evaluation assumptions. Shoreline, swimming and boating person-hour per year usage assumptions applied in the population dose calculations are presented in Table 5.4-2.

Regulatory Guide 1.109 states, "...other exposure pathways that may arise due to unique conditions at a specific site should be considered if they are likely to provide a significant contribution to the total dose. A pathway is considered significant if a conservative evaluation yields an additional dose increment equal to or more than 10 percent of the total from all pathways considered in this guide."

The boating and swimming pathways were ignored in the maximum individual dose calculations because these pathways do not contribute significantly (i.e., greater than 10 percent) to the total from all pathways identified in Regulatory Guide 1.109. The fish and drinking water consumption pathways dominate maximum individual doses. Applying even the most conservative assumptions for maximum individual swimming and boating usage rates would not result in these pathways contributing as much as the 10 percent of total dose from all pathways required to be considered significant in accordance with Regulatory Guide 1.109.

Associated Revisions to the Lee Nuclear Station Combined License Application:

None

Associated Attachments:

None