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April 14, 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# WLG2009.04-01

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 referenced letter:

RAI 110, 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 Environmental Report for the Lee Nuclear Station.

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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NRO

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Enclosure:


1. Response to RAI 110, 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 April 14, 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 110

NRC RAI:

In the second paragraph on page 5.4-4 of the ER it states that Table 5.4-5 presents the gaseous pathway consumption factors used by the computer program to calculate doses for both the maximally exposed individual and for the general population. Table 5.4-5 does not appear to contain that information. What methodology was used to calculate doses for the general population, and what population average input values were used?

Duke Energy Response:

The doses from routine gaseous effluents for the general population were calculated using the GASPAR II code and the methodology provided in Regulatory Guide 1.109. That calculation is available for inspection in the Duke Energy office in Charlotte, NC or in our consultants' offices in Richland, WA or Bethesda, MD.

Table 5.4-5 will be revised in a future revision of the Environmental Report to: (a) clarify that fruits and grains were included with vegetables for that consumption component of the Maximum Individual Consumption Factors and (b) specify the consumption components and values used for the Average Individual Consumption Factors for the general population.

The consumption factors used for the general population, as well as those used for the maximally exposed individual, are consistent with Regulatory Guide 1.109, Tables E-4 and E-5, respectively.

Associated Revisions to the Lee Nuclear Station Combined License Application:

ER Table 5.4-5, Gaseous Pathway Consumption Factors

Associated Attachment:

Attachment 110-1 Revised ER Table 5.4-5, Gaseous Pathway Consumption Factors

Attachment 110-1 to RAI 110

Revised ER Table 5.4-5

TABLE 5.4-5
GASEOUS PATHWAY CONSUMPTION FACTORS

Maximum Individual Consumption Factors ^(a)				
Maximum Individual	<u>Fruits, Vegetables, & Grain</u> (kg/yr)	Leafy Vegetables (kg/yr)	Milk (L/yr)	Meat (kg/yr)
Adult	520	64	310	110
Teen	630	42	400	65
Child	520	26	330	41
Infant	0	0	330	0

a) Consumption Factors from USNRC Regulatory Guide 1.109, Table E-5.

<u>Average Individual Consumption Factors^(b)</u>			
<u>Age Group</u>	<u>Fruit, Vegetables, & Grain</u> (kg/yr)	<u>Milk</u> (L/yr)	<u>Meat & poultry</u> (kg/yr)
<u>Adult</u>	<u>190</u>	<u>110</u>	<u>95</u>
<u>Teen</u>	<u>240</u>	<u>200</u>	<u>59</u>
<u>Child</u>	<u>200</u>	<u>170</u>	<u>37</u>

b) Consumption factors from NRC Regulatory Guide 1.109, Table E-4.