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July 17, 2008

Document Control Desk
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 Information Needs

Reference: Dolan to NRC Document Control Desk, *Application for Combined License for William States Lee III Nuclear Station Units 1 and 2,* December 12, 2007

From May 18, 2008 through May 20, 2008, the U.S. Nuclear Regulatory Commission (NRC) Staff performed a site audit of the William States Lee III Nuclear Station regarding FSAR 2.4, "Hydrologic Engineering." During the audit, the NRC Staff identified information needs on a number of topics.

This letter contains, as a separate enclosure, information on the topic listed below. The information need is referenced to the related NRC audit question.

Audit Questions 2 and 4

If you have any questions or need any additional information, please contact Peter Hastings, Nuclear Plant Development Licensing Manager, at 704-373-7820.

Bryan J. Dolan
Vice President
Nuclear Plant Development

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NRO

Enclosure:

NRC Review of Lee Nuclear Station FSAR 2.4, "Hydrologic Engineering"
Audit Questions 2 and 4

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 July 17, 2008

Phoebe P. Elliott

Notary Public

My commission expires: June 26, 2011

SEAL

xc (w/o enclosure)

Michael Johnson, Director, Office of New Reactors
Gary Holahan, Deputy Director, Office of New Reactors
David Matthews, Director, Division of New Reactor Licensing
Scott Flanders, Director, Division of Site and Environmental Reviews
Glenn Tracy, Director, Division of Construction Inspection and Operational Programs
Luis Reyes, Regional Administrator, Region II
Loren Plisco, Deputy Regional Administrator, Region II
Thomas Bergman, Deputy Division Director, DNRL
Stephanie Coffin, Branch Chief, DNRL

xc (w/enclosure)

Brian Hughes, Senior Project Manager, DNRL

NRC Site Audit of Lee Nuclear Station Regarding FSAR 2.4, "Hydrologic Engineering"

Reference NRC Audit Question Number(s): 2 & 4

NRC Information Need:

During the May 18-20, 2008, site audit of Section 2.4 of the FSAR, the NRC Staff identified the following information need:

The NRC Staff requested that Duke Energy submit the electronic input and output files for the HEC-RAS and HEC-HMS models used for the analysis of the Broad River, Make-Up Pond A, and Make-Up Pond B described in FSAR 2.4.

Duke Energy Response to Information Need:

Duke Energy has provided the HEC-RAS and HEC-HMS electronic input and output data files for the Broad River, Make-Up Pond A, and Make-Up Pond B as Attachment 1 to this response. Attachment 1 includes the electronic input and output files for the following model runs:

Broad River:

1) Probable Maximum Flood (PMF) – FSAR 2.4.3.4

   The "Broad River PMP HMR52 Model" folder contains the HMR 52 probable maximum precipitation analysis presented in FSAR 2.4.3.1 for the Broad River watershed and subbasins identified in FSAR Figure 2.4.3-203. "99HMR52.dat" is the input file and "99HMR52.out" is the output file.

   The "Broad River PMF HEC-HMS Model" folder contains the HEC-HMS probable maximum flood analysis presented in FSAR 2.4.3.3 for the Broad River watershed and subbasins identified in FSAR Figure 2.4.3-203. The input and output files are combined and require the HEC-HMS software to view.

   The "Broad River PMF HEC-RAS Model" folder contains the HEC-RAS probable maximum flood analysis presented in FSAR 2.4.3.3 for the Broad River. The folder contains only the input files.

   The "Broad River PMF HEC-RAS Model Output 2" folder contains the output file for the Broad River probable maximum flood analysis presented in FSAR 2.4.3.3 (with results presented in FSAR 2.4.3.4 and FSAR 2.4.3.5).

2) Dam Failure Analysis – FSAR 2.4.4

   The "Broad River dam failure HEC-HMS Model" folder contains the HEC-HMS dam failure analysis presented in FSAR 2.4.4.2 for the major upstream structures permutation presented in FSAR 2.4.4.1. The input and output files are combined and require the HEC-HMS software to view.

The "Broad River dam failure HEC-RAS Model" folder contains the HEC-RAS dam failure analysis presented in FSAR 2.4.4.2 for the Broad River. The folder contains only the input files.

The "Broad River dam failure HEC-RAS Model Output 3" folder contains the output file for the FSAR 2.4.4.2 Broad River dam failure analysis for the permutation considering failure of only the Gaston Shoals dam discussed in FSAR 2.4.4.1.

The "Broad River dam failure HEC-RAS Model Output 4" folder contains the output file for the FSAR 2.4.4.2 Broad River dam failure analysis for the permutation considering failure of both Gaston Shoals and Cherokee Falls dams discussed in FSAR 2.4.4.1.

Make-Up Pond A & B:

1) Probable Maximum Precipitation (PMP) – FSAR 2.4.3.1

   The "Site HEC-RAS Models" folder contains the HEC-RAS analyses for the local intense precipitation presented in FSAR 2.4.2.3. The subfolder, "plan model 10-31-07," contains four additional subfolders corresponding to each of the four drainage areas (NE, NW, SW, & SE) identified in FSAR Figure 2.4.2-202. Each drainage area subfolder contains the HEC-RAS input and output files. The output files are represented by the ".O01" file extension. The remaining files are input files.

2) PMF – FSAR 2.4.3.4

   The "Pond A and Pond B HEC-HMS Models" folder contains the HEC-HMS probable maximum flood analyses for Makeup Ponds A and B presented in FSAR 2.4.3.3. The HEC-HMS model contains both the Pond A and Pond B analyses. The input and output files are combined and require the HEC-HMS software to view. Pond A is represented in the HEC-HMS model by the "Sed Pond" basin and the "Res 2" reservoir. Pond B is represented in the HEC-HMS model by the "Low Flow Res" basin and the "Res 1" reservoir.

Associated Revision to the Lee Nuclear Station Combined License Application:

None

Attachments:

1) William States Lee III Nuclear Station, Combined License Application, HEC-RAS and HEC-HMS Input/Output Files, Computer Disk (DVD format)