LeeRAIsPEm Resource

From: Hughes, Brian
Sent: Sunday, November 01, 2009 8:46 AM
To: LeeRAIsPEm Resource
Subject: LEE-RAI-LTR-080 RELATED TO SRP 02.03.04,05 For the W.S. LEE Units 1 AND 2 COLA
Attachments: LEE-RAI-LTR-080.doc

Hearing Identifier: Lee_COL_RAI
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Sent Date: 11/1/2009 8:45:35 AM
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From: Hughes, Brian

Created By: Brian.Hughes@nrc.gov

Recipients:
"LeeRAIsPEm Resource" <LeeRAIsPEm.Resource@nrc.gov>
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November 1, 2009

Mr. Peter S. Hastings, P.E.
Licensing Manager, Nuclear Plant Development
Duke Energy
526 South Church Street
Charlotte, NC 28201-1006

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 080 RELATED TO SRP 02.03.04, 05 FOR THE WILLIAM STATES LEE III UNITS 1 AND 2 COMBINED LICENSE APPLICATION

Dear Mr. Hastings:

By letter dated December 12, 2007, as supplemented by letters dated January 28, 2008, February 6, 2008 and February 8, 2008, Duke Energy submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advance passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-6582.

Sincerely,

/**RA**/

Brian Hughes, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-018
52-019

Enclosure:
Request for Additional Information

CC: see next page

P.Hastings

If you have any questions or comments concerning this matter, you may contact me at 301-415-6582.

Sincerely,

/**RA**/

Brian Hughes, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-018
52-019

eRAI Tracking No. 3726, 3727

Enclosure:
Request for Additional Information

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NRO-002

OFFICE	RSAC/BC	RSAC	NWE1/L-PM
NAME	CLauron*	TGalletta*	BHughes*
DATE	09/09/09	09/09/09	10/29/09

*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 3726

10/29/2009

William States Lee III, Units 1 and 2
Duke Energy Carolinas, LLC
Docket No. 52-018 and 52-019
SRP Section: 02.03.04 - Short Term Atmospheric Dispersion Estimates for Accident Releases
Application Section: 2.3.4

QUESTIONS for Siting and Accident Consequence Branch (RSAC)

02.03.04-4

The atmospheric dispersion factors (x/Q values) presented in FSAR Section 2.3.4 were generated using one year of onsite meteorological data. SRP 2.3.3 acceptance criteria 2.b states that if two years of onsite meteorological data are not available at the time a COL application is filed, the COL applicant should file a supplemental submittal when a complete 2-year data set is available and provide a reanalysis of the Section 2.3.4 atmospheric dispersion estimates based on the complete 2-year data set.

The design-basis accident x/Q values generated from 2 years of meteorological data provided in Appendix 2CC are generally more conservative/bounding than the 1-year x/Q values presented in FSAR Section 2.3.4. Further, the staff generated accident x/Qs using 2 years of meteorological data that were generally higher than the 2 year accident x/Qs presented in Appendix 2CC.

a. Please provide a copy of the input and output files for the PAVAN and ARCON model runs using the 2-year meteorological data set so that the staff may conduct a confirmatory analysis of the x/Q values presented in Appendix 2CC.

b. Please justify not identifying the more conservative 2-year accident x/Q values presented in Appendix 2 CC as site parameters in FSAR Table 2.0-201.

02.03.04-5

The applicant has taken a departure in FSAR Chapter 18, Human Factors Engineering, in that the Lee Technical Support Center (TSC) is not located in the control building as identified in the AP1000 DCD (Departure No. WLS DEP 18.8-1). Provide a description of the methodology, inputs, assumptions, and calculated atmospheric dispersion factors (x/Q values) for potential design-basis accident releases to the TSC. Information provided should be analogous to that provided for releases to the control room and include drawings to show relevant information graphically. Provide computer input and output files so that the staff may perform confirmatory analysis. Revise the Lee FSAR to include this information.

In accordance with SRP 15.0.3, SRP Acceptance Criteria 3, Technical Support Center Radiological Habitability, information regarding the TSC x/Q values is needed to verify that Lee meets Paragraph IV.E.8 of Appendix E to 10 CFR Part 50 concerning TSC habitability.

Request for Additional Information No. 3727

10/29/2009

William States Lee III, Units 1 and 2
Duke Energy Carolinas, LLC
Docket No. 52-018 and 52-019
SRP Section: 02.03.05 - Long-Term Atmospheric Dispersion Estimates for Routine Releases
Application Section: 2.3.5

QUESTIONS for Siting and Accident Consequence Branch (RSAC)

02.03.05-4

The atmospheric dispersion factors (x/Q values) presented in FSAR Section 2.3.5 were generated using one year of onsite meteorological data. SRP 2.3.3 acceptance criteria 2.b states that if two years of onsite meteorological data are not available at the time a COL application is filed, the COL applicant should file a supplemental submittal when a complete 2-year data set is available and provide a reanalysis of the Section 2.3.5 atmospheric dispersion estimates based on the complete 2-year data set.

The routine release x/Q values generated from 2 years of meteorological data provided in Appendix 2CC are generally more conservative/bounding than the 1-year x/Q values presented in FSAR Section 2.3.5. Further, the staff generated x/Qs using 2 years of meteorological data that were generally higher than the 2 year x/Qs presented in Appendix 2CC.

a. Provide the input and output files for the 2-year XOQDOQ model runs so that the staff may conduct a confirmatory analysis of the x/Q values presented in the appendix.

b. Please justify not identifying the more conservative 2-year accident x/Q values presented in Appendix 2 CC as site parameters in FSAR Table 2.0-201.

c. The Staff also noted an apparent discrepancy between the WLS Site Characteristic, Site Boundary (Annual Average) x/Q value (5.7E-06) located in Table 2.0-201 and the No Decay/Undepleted EAB value (5.8E-06) located in FSAR Table 2.3-289. Following resolution of item b above, please evaluate these tables for consistency.