LeeRAIsPEm Resource

From: Brian Anderson
Sent: Monday, October 06, 2008 5:12 PM
To: LeeRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 037 RELATED TO SRP SECTION 17.5 FOR THE WILLIAM STATES LEE III UNITS 1 AND 2 COMBINED LICENSE APPLICATION
Attachments: LEE-RAI-LTR-037.doc

Importance: High

Hearing Identifier: Lee_COL_RAI
Email Number: 45

Mail Envelope Properties (CB87FC66F95637428C5E0D066E756B6F8F0227069A)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 037 RELATED TO SRP SECTION 17.5 FOR THE WILLIAM STATES LEE III UNITS 1 AND 2 COMBINED LICENSE APPLICATION
Sent Date: 10/6/2008 5:11:42 PM
Received Date: 10/6/2008 5:11:45 PM
From: Brian Anderson

Created By: Brian.Anderson@nrc.gov

Recipients:
"LeeRAIsPEm Resource" <LeeRAIsPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	3	10/6/2008 5:11:45 PM
LEE-RAI-LTR-037.doc	68602	

Options
Priority: High
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

October 6, 2008

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. 037 RELATED TO SRP SECTION 17.5 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 advanced 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 301-415-9967 or you may contact Brian Hughes, the lead project manager for the William States Lee III combined license at 301-415-6582.

Sincerely,

/**RA**/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-018
52-019

eRAI Tracking No. 811

Enclosure:
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Brian Hughes, the lead project manager for the William States Lee III combined license at 301-415-6582.

Sincerely,

/**RA**/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-018
52-019

eRAI Tracking No. 811

Enclosure:
Request for Additional Information

Distribution:

Public	SCoffin	SGoetz
RidsNroDnrlNwe1	BHughes	JPeralta
RidsNroLAKGoldstein	TSimms	KHeck
RidsOgcMailCenter	BAnderson	
RidsAcrsAcnwMailCenter	MComar	
RidsRgn2MailCenter	RJoshi	
RidsNroDnrlNwe2	SBrock	

NRO-002

OFFICE	CQVP/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	JPeralta*	BAnderson*	SBrock*	BHughes*
DATE	8/20/08	8/20/08	8/29/08	10/6/08

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Request for Additional Information
William States Lee III, Units 1 and 2
Duke Energy Carolinas, LLC
Docket No. 52-018 and 52-019
SRP Section: 17.5 - Quality Assurance Program Description - Design Certification, Early Site Permit and New License Applicants
Application Section: 17.5

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

17.5-1
Scope of QAPD (QAPD Part I, Section 1)
The Lee Quality Assurance (QA) Program Description (QAPD) Part 1, Section 1.1, Scope/Applicability, states that the QAPD applies to COL/construction/pre-operation and/or operation activities. The "and/or" is not consistent with the scope of the QAPD, as stated in QAPD Part 1, Section 1 or Final Safety Analysis Report (FSAR) Table 13.4-201, which lists the QA program as a required operational program. Please address the inconsistent use of "and/or", since the QAPD applies to all of the stated activities.

17.5-2
Siting Activities (QAPD Part I, Section 1)
QAPD Part 1, Section 1.1 lists siting as an activity within the scope of the QAPD. Since the QAPD would not become effective until COL issuance, clarify how siting activities would be subject to its provisions.

17.5-3
Construction/Operations Phases (QAPD Part I, Section 1)
QAPD Part II, Section 1, Organization, describes the Duke organizational structure, functional responsibilities, levels of authority and interfaces for establishing, executing, and verifying QAPD implementation. The description is applicable to the construction/preoperation phase and also to the operations phase.

Every applicant for a combined license is required by the provisions of §52.79 to include in its FSAR a description of the QA applied to the design, and to be applied to the fabrication, construction, and testing of the structures, systems, and components of the facility and to the managerial and administrative controls to be used to assure safe operations. The QAPD must include a discussion of how the applicable requirements of Appendix B have been and will be satisfied, including a discussion of how the QA program will be implemented.

In accordance with the above, Section 1, Organization, of the QAPD should be structured to clearly delineate 1) how the QA program is implemented during the period of construction and testing and 2) how the QA program is implemented during the operations phase. The transition process during which the operational programs become effective should be described. Position descriptions, including roles, responsibilities, and lines of authority, should be included for applicable corporate and line positions that implement and verify elements of the QA program and the administrative controls described by N18.7, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants.

17.5-4
Organization (QAPD Part I, Section 1)
FSAR Section 17.5 states that the QAPD is maintained as a separate document; whereas QAPD Part II, Section 1 states that organization charts for various departments/locations are contained in chapter 13 of the FSARs of the respective station. NEI 06-14A, "Quality Assurance Program Description," referenced by FSAR Section 17.5, includes charts typical of the construction/preoperation phase.

Because the QAPD is a stand-alone document, periodically submitted for NRC review, it should include organization charts for the construction/preoperation phase and the operations phase. These charts should depict the flow of responsibilities from corporate positions responsible for quality-related programs to and including positions responsible for implementing and verifying elements of these programs. Generic position titles, descriptive of position functions and supplemented by descriptive text, may be used.

The QAPD describes the functions and responsibilities associated with the quality assurance requirements of Appendix B, Criteria I, Organization, Criteria II, Quality Assurance, and the administrative requirements described by American National Standard Institute (ANSI) N18.7. All positions associated with the establishment, implementation, and verification of quality-related activities should be shown on the organization charts and described in the QAPD. For the operations phase, the level of detail to be included should include roles, responsibilities, and lines of authority for the positions necessary to implement the requirements of N18.7. Comparable detail should be provided for the construction/preoperation phase.

The following clarifications are requested, specific to the submitted QAPD, Section 1:

Section 1, Organization – It is stated that design, engineering and environmental services are provided by a contract that identifies the Engineer and Constructor. Please clarify whether these services are provided by a single contract, as suggested in the text, and also the method for determining the "applicable" requirements of the QA program.

Section 1.1, Corporate Organization – It is stated that "The verification of quality is assigned to qualified personnel independent of the responsibility for performance or direct supervision of the activities. The degree of independence varies commensurate with the activity's importance to safety." Please describe the method for determining an activity's "importance to safety."

Section 1.2, Group Executive & Chief Nuclear Officer, Nuclear Generation – It is stated that this position is responsible for providing "technical support to the plants" and establishing and managing the contract for the development of new nuclear generation." Section 1.1 also assigns responsibility for "technical support" to the President of US Franchised Electric Gas and responsibility for "procurement" to the Chief Financial Officer. Please clarify the distinction between the technical support and contract responsibilities of the CNO and the positions described in Section 1.1.

Section 1.3, Nuclear Operations – This section describes the responsibilities of the "executive responsible for Nuclear Operations". Is this position filled during the construction/preoperation phase? If it is, please differentiate between responsibilities during this phase and the operations phase.

Section 1.4, Nuclear Plant Development – Management of engineering, construction, and procurement contractors and subcontractors is assigned to the "executive responsible for Nuclear Plant Development." Since no quality assurance responsibilities are assigned to this position, please clarify how QA program implementation and verification is conducted during the construction/preoperation

phase, with particular detail provided with respect to activities performed by contractors and subcontracts.

Section 1.5, Quality Assurance and Oversight – Is the position of the "manager responsible for quality assurance and oversight" a corporate position or a plant position? The reporting relationships incumbent with this position are not described. Please clarify the oversight responsibilities of this position, including those associated with implementation of the independent review function, described in Section 2.7. Section 1.5 states that the "manager for quality assurance and oversight" is responsible for "making periodic reports on the effectiveness" of the quality assurance program. To whom are these reports distributed and for what purpose?

Section 1.6, Support and Shared Services - Clearly identify the positions and responsibilities for the "executives responsible for support and shared services." To whom do these executives report? Clarify the position(s) responsible for implementing the programs for "maintenance and testing services," which are noted as elements of the quality program, but which are not assigned to position(s).

Section 1.8, Authority to Stop Work – Reference is made to "approved procedures." If this reference pertains to the Duke procedural controls described in Section 5, identify them as such. If these are other than procedures developed and controlled by Duke, describe the process for approving these procedures.

Section 1.9, QA Organizational Independence – What is the functional definition of "checking" and how does it differs from "verification." Since it is stated that design activities are not checked, provided clarification of how the adequacy of design activities is assured.

17.5-5
Safety Related Systems, Structures, Components (SSCs) (QAPD Part I, Section 2)
QAPD, Section 2, states that the QAPD applies to those quality-related activities that involve the functions of safety-related activities of structures, systems, and components (SSCs) as described in the COL Final Safety Analysis Report. The staff notes that Appendix B to 10 CFR Part 50 requires, in part, that Part 52 applicants include in the FSAR a descrption of the quality assurance [program] applied to the design, and to be applied to the fabrication, construction, and testing of the SSCs of the facility and to the managerial and administrative controls to be used to assure safe operations. Please revise the language in this section to conform to this requirement.

Also, the current language in this section seems to indicate that safety-related SSCs are described in the FSAR. Please indentify the corresponding FSAR section. Otherwise, please clarify the purpose of this text and/or modify it accordingly.

17.5-6
Early Site Permit (QAPD Part I, Section 2)
QAPD Section 2 – Reference is made to ESP applications in Section 2 and other places in the QAPD. Please clarify how the QAPD applies to ESP activities or remove these references from the QAPD.

17.5-7
Safety-Related Activities (QAPD Part I, Section 2)
Section 2.3 of NEI 06-14A states that the QAPD in the COL application will be annotated to identify site-specific design basis activities. Section 2.3 of the Lee QAPD states that this information will be maintained in a project planning document. Please clarify the intent of this statement which seems to refer to the development of the COL application rather than to the design, construction, or operational phases of the Lee Nuclear Station. Are the annotated outlines intended to be submitted as part of the application?

17.5-8
Design Activities (FSAR Section 17.1)
FSAR Section 17.1 states that the Duke Energy Quality Assurance (QA) program and the Westinghouse Electric Company Quality Management System establish the QA requirements for design activities until the Duke QAPD becomes effective. In order to plan NRC inspections of these activities, please clarify the expected scope, locations, and schedules for design activities to be conducted by Duke/Westinghouse from the date of docketing until issuance of the COL.

17.5-9
Implementation of Operations Program (FSAR Section 17.1)
FSAR Section 17.1 states that the Duke NPD QAPD will become effective at COL issuance. FSAR Table 13.4-201, Operational Programs Required by NRC Regulations, states that the QA program – Operation will be implemented 30 days prior to initial fuel loading. Please confirm when the Duke NPD QAPD will become effective and clarify the variance between these statements.

17.5-10
Evaluation of Current QA Program against the SRP (FSAR Section 17.1)
FSAR Section 17.1 states that the existing Duke Energy QA program is used to provide oversight of contractors that have been delegated the responsibility of design activities prior to COL issuance. FSAR Table 1.9-202, Conformance with SRP Acceptance Criteria, states that the FSAR Position is acceptable with regards to SRP 17.1.

Pursuant to 10 CFR 52.79(a)(41), COL applicants must provide an evaluation of the facility against the SRP revision in effect 6 months before the docket date of the application. Where differences exist, the applicant's evaluation must discuss how the proposed alternative provides an acceptable method of complying with the Commission's regulations, or portions thereof, that underlie the corresponding SRP acceptance criteria. Regulatory Guide (RG) 1.206, Section C.I.17.5.3, states that COL applicants may use an existing QAPD that the NRC has approved for current use for either or both phases of its QAPD submittal, provided that the applicant identifies and justifies alternatives to, or differences from, the SRP in effect 6 months prior to the docket date of the application. Pursuant to 10 CFR 52.79(a)(41), please provide an evaluation of the existing Duke Energy QA program against the acceptance criteria in SRP 17.5.

17.5-11
QAPD Incorporation by Reference (FSAR Section 17.5)
FSAR Section 17.5 states, without reference, that the QAPD is maintained as a separate document. Appendix B to 10 CFR Part 50 states that every applicant for a combined license under 10 CFR Part 52 is required by the provisions of 10 CFR 52.79 to include in its FSAR a description of the quality assurance applied to the design, and to be applied to the fabrication, construction, and testing of SSCs of the facility and to the managerial and administrative controls to be used to assure safe operation. Please clarify why the FSAR does not either include or incorporate the QAPD by reference.