

May 12, 2008

Ms. Andrea L. Sterdis
Manager, Nuclear Licensing & Industry Affairs
Nuclear Generation Development & Construction
Tennessee Valley Authority
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 016 RELATED TO
SRP SECTION 17.5 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED
LICENSE APPLICATION

Dear Ms. Sterdis:

By letter dated September 30, 2007, as supplemented by letters dated November 2, 2007, January 8, 2008 and January 14, 2008, Tennessee Valley Authority (TVA) 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 45 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 Joseph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

/RA/

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

Docket Nos. 52-014
52-015

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 Joseph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

/RA/

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

Docket Nos. 52-014
 52-015
 eRAI Tracking No. 137

Enclosure:
 Request for Additional Information

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NAME	JPeralta		BAnderson*	PMoulding*	JSebrosky*
DATE	4/09/08		5/01/08	5/06/08	5/07/08

*Approval captured electronically in the electronic RAI system.

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**Request for Additional Information
5/12/2008**

**Bellefonte Units 3 and 4
Tennessee Valley Authority
Docket No. 52-014 and 52-015**

**SRP Section: 17.5 - Quality Assurance Program Description - Design Certification, Early Site
Permit and New License Applicants
Application Section: 17.5 and 1.9**

QUESTIONS from Quality and Vendor Branch 1

17.5-13

The Bellefonte QAPD, Part II, Section 7.2, NQA-1-1994 Commitment, describes an NRC-approved exception to NQA-1-1994, Supplement 7S-1, for commercial-grade calibration services from a calibration laboratory. Specifically, the QAPD states, in part, that a documented review of the supplier's accreditation shall be performed and shall include a verification that the calibration laboratory holds a domestic accreditation by NVLAP or A2LA as recognized by NVLAP through the ILAC mutual recognition arrangement. However, SRP Section 17.5, Section II.L.8.c, describes the relevant accreditation as A2LA as recognized by ILAC signatories, not as recognized by NVLAP through ILAC. Please justify the discrepancy between the QAPD and the SRP Section 17.5 approach, or revise the QAPD exception accordingly.

17.5-14

The Bellefonte QAPD, Part II, Section 7.2, describes an exception to NQA-1-1994, Supplement 7S-1, Section 10, Commercial Grade Item, which states that TVA will also use other appropriate approved regulatory means and controls to support TVA commercial grade dedication activities. The QAPD states that NRC Regulatory Information Summary (RIS) 2002-22, "Use Of EPRI/NEI Joint Task Force Report, 'Guideline On Licensing Digital Upgrades: EPRI TR-102348, Revision 1, NEI 01-01: A Revision Of EPRI TR-102348 To Reflect Changes To The 10 CFR 50.59 Rule," is one example of other appropriate approved regulatory means. Attachment 1 of RIS 2002-22 provides the NRC staff's safety evaluation of the EPRI/NEI joint task force report. The NRC safety evaluation specifically states that the regulatory framework for this evaluation consists of (1) the requirements outlined in SRP Chapter 7 for the licensing process for digital I&C components in nuclear power plants and (2) the requirements for implementing digital replacements under the 10 CFR 50.59 rule. However, neither SRP Chapter 7 nor 10 CFR 50.59 provides guidance on commercial grade dedication activities. Provide an explanation as to how RIS 2002-22 represents an exception applicable to TVA's QAPD, or revise the QAPD accordingly.

17.5-15

Part IV, Regulatory Commitments, of the Bellefonte QAPD, identifies the NRC Regulatory Guides and other quality assurance standards that have been selected to supplement and support the TVA QAPD. SRP 17.5, Section II.U.1.c, provides for a commitment to RG 1.37, Revision 1. However, RG 1.37 is not listed in the QAPD as an RG to which TVA commits. Revise the TVA QAPD Part IV to commit to RG 1.37, Revision 1, or justify its exclusion.

17.5-16

Appendix 1AA of the Bellefonte FSAR lists Bellefonte's conformance with NRC Regulatory Guides (RGs) and provides any exceptions to conformance with those RGs. For those RGs that describe quality assurance-related requirements, Appendix 1AA appears to address the conformance of the QAPD provided in Part 11 of the COL application. However, since TVA is relying on its existing quality assurance program for activities prior to COL issuance, please explain how Appendix 1AA also addresses the existing TVA quality assurance program's conformance to the applicable RGs.

17.5-17

For all RGs that describe quality assurance-related requirements, Appendix 1AA proposes to use the exception that quality assurance be in accordance with the QAPD. For the following RGs, explain how the QAPD provides an acceptable exception to the RGs. a. RG 1.28, Revision 3 b. RG 1.30, Revision 0 c. RG 1.33, Revision 2 d. RG 1.37, Revision 1 e. RG 1.38, Revision 2 f. RG 1.39, Revision 2 g. RG 1.94, Revision 1 h. RG 1.116, Revision 0 i. RG 1.139, Revision 0

17.5-18

Revision 16 to the AP1000 DCD has proposed changes to Table 1.9-1, Regulatory Guide/DCD Section Cross-References. Specifically, Revision 16 of the AP1000 DCD is referencing RG 1.33 second proposed Rev. 3, dated 11/80. Please explain how these proposed changes are consistent with Appendix 1AA of the Bellefonte FSAR or modify the Appendix accordingly.