

## **BellefonteRAIsPEm Resource**

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**From:** Joseph Sebrosky  
**Sent:** Thursday, September 04, 2008 2:15 PM  
**To:** BellefonteRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 123 RELATED TO SRP SECTION 2.5.1 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION  
**Attachments:** BLN-RAI-LTR-123.doc

**Hearing Identifier:** Bellefonte\_COL\_RAI\_Public  
**Email Number:** 110

**Mail Envelope Properties** (C4A4C9A16294FB4CBA5A36312D05FFAC0ABBFA7E0B)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 123 RELATED TO SRP SECTION 2.5.1 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION  
**Sent Date:** 9/4/2008 2:15:08 PM  
**Received Date:** 9/4/2008 2:15:10 PM  
**From:** Joseph Sebrosky

**Created By:** Joseph.Sebrosky@nrc.gov

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

**Post Office:** HQCLSTR02.nrc.gov

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MESSAGE	3	9/4/2008 2:15:10 PM
BLN-RAI-LTR-123.doc	51822	

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

September 4, 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. 123 RELATED TO  
SRP SECTION 2.5.1 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED  
LICENSE APPLICATION

Dear Ms. Sterdis:

By letter dated October 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 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 301-415-1132.

Sincerely,

*/RA/*

Joseph M. Sebrosky, Senior Project Manager  
AP1000 Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-014  
52-015

eRAI Tracking No. 1072

Enclosure:  
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-1132.

Sincerely,

*/RA/*

Joseph M. Sebrosky, Senior Project Manager  
AP1000 Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-014  
52-015

eRAI Tracking No. 1072

Enclosure:  
Request for Additional Information

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NRO-002

OFFICE	RGS1*	RGS1/BC*		OGC	NWE1/L-PM
NAME	YLi	CMunson		AHodgdon*	JSebrosky*
DATE	8/19/08	8/19/08		8/28/08	9/4/08

\*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

**Request for Additional Information**  
**Bellefonte Units 3 and 4**  
**Tennessee Valley Authority**  
**Docket No. 52-014 and 52-015**  
**SRP Section: 02.05.01 - Basic Geologic and Seismic Information**  
**Application Section: 2.5.1**

**QUESTIONS from Geoscience and Geotechnical Engineering Branch**

02.05.01-1

FSAR 2.5.1.1.3.2 describes sub-vertical, upward-widening features in a soil exposure and states that they “resemble non-tectonic soil weathering features (cutans) ....” Please present observations, measurements, or analyses, and figures, photographs, or other illustrations that demonstrate whether or not these features could be seismically induced.

02.05.01-2

FSAR 2.5.1.2.5 describes minor displacement (about 3 inches) that was observed along a “joint” located in the northwest corner of the Unit 1 QA Records Storage Vault. The joint was subsequently investigated. What is the age of the displacement?

02.05.01-3

Given the uncertainty in locating earthquakes in most network data, especially at distances corresponding to the Eastern Tennessee Seismic Network stations, distance to the nearest station, station density, crustal velocity structure and etc., please discuss the likelihood that some of the earthquakes are located on one or more of the mapped faults shown in FSAR Figures 2.5-294 and 2.5-220.

02.05.01-4

Please provide evidence that all of the thrust faults shown in FSAR Figure 2.5-294 near the Bellefonte COL site sole out into the Appalachian detachment. Figure 2.5-220 shows subbasement faults with the same general northeast-strike and similar locations as those of Fig. 2.5-294. Given fault location uncertainty, explain whether or not some of the faults shown on these two figures could be the same fault penetrating through the detachment.

Enclosure