

## **BellefonteRAIsPEm Resource**

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**From:** Joseph Sebrosky  
**Sent:** Wednesday, July 16, 2008 4:43 PM  
**To:** BellefonteRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 077 RELATED TO SRP SECTION 2.3.2 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION  
**Attachments:** BLN-RAI-LTR-077.doc

**Hearing Identifier:** Bellefonte\_COL\_RAI\_Public  
**Email Number:** 55

**Mail Envelope Properties** (C4A4C9A16294FB4CBA5A36312D05FFAC0A9CB5252C)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 077 RELATED TO SRP SECTION 2.3.2 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION  
**Sent Date:** 7/16/2008 4:42:53 PM  
**Received Date:** 7/16/2008 4:42:54 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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BLN-RAI-LTR-077.doc	57850	

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

July 16, 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. 077 RELATED TO  
SRP SECTION 2.3.2 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. 518

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. 518

Enclosure:  
Request for Additional Information

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NRO-002

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NAME	TGalletta	CCox		AHodgdon*	JSebrosky*
DATE	6/24/08	6/24/08		06/29/08	07/16/08

\*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: 02.03.02 - Local Meteorology**  
**Application Section: 2.3.2**

**QUESTION from the Siting and Accident Consequences Branch**

02.03.02-1

FSAR Tables 2.3-263 thru 2.3-265 are titled Temperature Means and Extremes for the individual data sets. Please clarify that all the data statistics presented in the tables are identified correctly as being monthly mean or extreme. For example, Table 2.3-264 (BLN 1979-1982) has a record minimum of -3.9°F. Table 2.3-263 (Scottsboro, AL) has 28.3°F as the lowest temperature in the table. Please review these tables for consistency and add the second year (2007-2008) of BLN data where appropriate. Also add a statement/justify why Scottsboro was chosen for the temperature analysis when Huntsville data is used for other parameters.

02.03.02-2

FSAR section 2.3.2.1.3.2 states that Huntsville averaged 37 hours/year of fog from 2001 through 2005. The staff was unable to confirm the value from the reference (#227)/ website provided in section 2.3.7 of the FSAR. Additionally the 37 hours/year value seems low when compared to the NCDC LCD (SRP 2.3.1 reference #6) statistic of 19.9 days/year with "Heavy" fog. Please provide further clarification on where these data were obtained and how the annual estimate was calculated.

02.03.02-3

Please verify that the monthly and average mixing heights and ventilation rates presented in FSAR Table 2.3-303 and Table 2.3-211 are correct. The staff was unable to reproduce the values presented in the tables. The staff values were higher. It appears that the missing/blank values in the mixing height data base were averaged into the calculation as zeros.

Enclosure

02.03.02-4

Please revise FSAR Section 2.3.2.2.1 to discuss the effects of salt and moisture deposition due to cooling tower operation on electrical transmission lines and other electrical equipment, including transformers and the switchyard.

Please describe any quantitative analysis performed to evaluate these effects, including providing a copy of the SACTI input files (*e.g.*, *PREP.USR*, *MULT.USR*, *TABLES.USR*, *PAGE.USR*) and assumptions so the staff may conduct a confirmatory analysis.

02.03.02-5

FSAR section 2.3.2.1.3.1.2 states that the maximum snowfall at Scottsboro was 10.0 inches on February 15, 1958. FSAR section 2.3.1.2.2 states that the greatest snowfall in Scottsboro was 12 inches on March 13, 1993. The staff was able to verify the 12 inch value from the Southeast Regional Climate Center data for Scottsboro. Please review this apparent discrepancy for FSAR consistency.

Please also review for a typo the period of record and number of years reported (*i.e.*, 1959-2005 not equal to 36 years).