

## **BellefonteRAIsPEm Resource**

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**From:** Brian Hughes  
**Sent:** Tuesday, October 21, 2008 11:32 AM  
**To:** BellefonteRAIsPEm Resource  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 131 RELATED TO SRP  
SECTION 16.1 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE  
APPLICATION  
**Attachments:** BEL-RAI-LTR-131.doc

**Hearing Identifier:** Bellefonte\_COL\_RAI\_Public  
**Email Number:** 118

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**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 131 RELATED TO  
SRP SECTION 16.1 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION  
**Sent Date:** 10/21/2008 11:31:44 AM  
**Received Date:** 10/21/2008 11:31:46 AM  
**From:** Brian Hughes

**Created By:** Brian.Hughes@nrc.gov

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

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| MESSAGE             | 3     | 10/21/2008 11:31:46 AM |
| BEL-RAI-LTR-131.doc | 71278 |                        |

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

October 21, 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. 131 RELATED TO  
SRP SECTION 16.1 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 301-415-6582 or you may contact Joseph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

**/RA/**

Brian Hughes, 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

If you have any questions or comments concerning this matter, you may contact me at 301-415-6582 or you may contact Joesph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

/RA/

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

Docket Nos. 52-014  
52-015  
eRAI Tracking No. 1450

Enclosure:  
Request for Additional Information

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NRO-002

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| OFFICE | CTSB      | NWE1/PM  | OGC      | NWE1/L-PM  |
| NAME   | TTjaderJ* | BHughes* | JMartin* | JSebrosky* |
| DATE   | 8/21/08   | 10/21/08 | 7/21/08  | 10/20/08   |

\*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 1450

10/21/2008

Bellefonte Units 3 and 4  
TVA  
Docket No. 52-014 and 52-015  
SRP Section: 16 - Technical Specifications  
Application Section: 4

QUESTIONS for Technical Specification Branch (CTSB)

16-1

In its combined license (COL) application for Bellefonte Units 3 and 4, TVA proposes that certain COL action (or information) items be addressed after COL issuance by the COL holder as a condition of the COL. The site-specific information for completing these action items mostly consists of numerical values of technical specification (TS) limits and is indicated by the use of brackets, reviewer's notes, footnotes, or other "placeholder" indicators in the generic technical specifications (GTS), and also in the proposed plant-specific technical specifications (PTS). However, this site-specific information must be provided or confirmed by the COL applicant in the COL application. The proposal for the COL holder to provide this information after COL issuance as a condition of the COL is not consistent with applicable regulations and statutes (see COL/DC-ISG-8, "Technical Specification Information that Combined License Applicants Must Provide in Combined License Applications").

Accordingly, for each site-specific information item, provide or confirm, in order of preference, (1) the site-specific information, (2) useable information that bounds the site-specific information, or (3) a reference to an associated TS in PTS administrative controls Section 5.5, "Programs and Manuals," or 5.6, "Reporting Requirements," that requires using an NRC-approved methodology to determine the site-specific information and establishing a program or report in which the site-specific information will be documented external to the PTS.

The applicant shall describe in its COL application, including in the PTS bases as applicable, the following:

- For site-specific information, the method used to determine the information and why the information is useable for facility operation in all applicable operational modes including power operation up to the proposed thermal power limit.  
- or -
- For bounding information, the method used to determine the information and that the information is bounding to the site-specific information, and why the information is useable for facility operation in all applicable operational modes including power operation up to the proposed thermal power limit.  
- or -
- Regarding the methodology approach, the administrative control TS shall (a) explicitly reference by title and date the NRC-approved methodology that is specified for determining the site-specific information, (b) require establishing an associated document or report in which to record and maintain the site-specific

information external to the PTS, and (c) specify any other information or restrictions necessary and appropriate to satisfy 10 CFR 50.36. This would satisfy 10 CFR 50.36 with respect to the relocated site-specific information by virtue of the approved methodology and the restrictions spelled out in the administrative control TS; this is consistent with the standard technical specification administrative controls that require maintaining specified plant operating limits in the core operating limits report and the reactor coolant system pressure temperature limits report.

To facilitate a comprehensive response to this information request, a listing of all COL action, or information, items that the applicant had proposed for the COL holder to provide, and that are identified in chapters 16 and 16B of the AP1000 design control document, revision 16, follows. The applicant is requested to verify the list is complete and for each item identify which of three options listed above will be used to satisfy the requirements of 10 CFR 50.36. If the methodology approach is taken, the applicant should explain why one of the other two options was not taken. See attached table for list of items.

**Combined License Information Items in the AP1000 Generic Technical Specifications (GTS) and Bases  
Requiring Resolution in the Bellefonte Units 3 & 4 Plant-Specific Technical Specifications (PTS) and Bases  
by the Time of Issuance of the Bellefonte Units 3 & 4 Combined Licenses**

The information in this table is based on Generic Design Control Document (DCD) Chapters 16 and 16B in the Westinghouse AP1000 design certification rule amendment application (DCD revision 16), and FSAR Chapters 16 and 16B in TVA's Bellefonte Units 3 & 4 combined license applications that incorporate the GTS and bases by reference. The table does not include GTS COL information which the applicant indicated it would provide prior to issuance of the combined licenses.

| <b>GTS References</b> | <b>Listing of Information that TVA Must Address in PTS</b>                                                                                                                                                                                                                                                                                                                                |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SR 3.1.4.1            | Control rod drop time.                                                                                                                                                                                                                                                                                                                                                                    |
| SR 3.3.1.9            | CHANNEL CALIBRATION, Allowable Values and Trip Setpoints for RTS Instrumentation Functions 2.a, 3, 5, 16.a, 16.b, 16.c, Table 3.3.1-1 Reviewer Note.                                                                                                                                                                                                                                      |
| SR 3.3.1.8            | CHANNEL CALIBRATION, Allowable Values and Trip Setpoints for RTS Instrumentation Functions 6, 7, 8.a, 8.b, 9, 10, 11, 12, 13, 14, Table 3.3.1-1: Note 1 and Note 2 (these notes include 12 items with values specified in the COLR, and are not considered to be placeholder items).                                                                                                      |
| SR 3.3.2.4            | CHANNEL CALIBRATION, Allowable Values and Trip Setpoints for Engineered Safety Feature Actuation System (ESFAS) Instrumentation Functions 1 b c d e, 2 b, 4 b, 4 c(1), 4 c(2), 4 d, 5 b, 6 b d, 7 b d, 8 a b, 9 b, 10 a b c, 11 b d, 12 b, 13 b c f, 14 b, 15 a c, 16 a b c d, 17 a, 18 b c d e, 19 a, 20 a b, 21 a, 22 c, 23 b, 24 a, 27 b, 28 a, 29 b, and Table 3.3.2-1 Reviewer Note. |
| SR 3.4.3.1            | PTLR referenced in LCO 3.4.3 and SR 3.4.3.1.                                                                                                                                                                                                                                                                                                                                              |
| LCO 3.6.8             | PTS 3.6.8, Containment Penetrations: Figure B 3.6.8-1, Time Permitted for Containment Closure;                                                                                                                                                                                                                                                                                            |

| GTS References                                                                                                         | Listing of Information that TVA Must Address in PTS                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                        | In B 3.6.8, Fig B 3.6.8-1 contains a bracketed graph that contains times and temperature curves for containment closure.                                                                                                                                                                                                                                                                                                                                    |
| SR 3.6.2.1                                                                                                             | Containment Air Locks: Performance criteria – reference to PTS 5.5.8 CLRT Program.                                                                                                                                                                                                                                                                                                                                                                          |
| SR 3.8.1.2 Bases                                                                                                       | The battery is recharged when the measured charging current is $\leq$ [2] amps.                                                                                                                                                                                                                                                                                                                                                                             |
| PTS 3.8.7<br>Actions<br>Conditions B and F, Required<br>Action B.2, and<br>SR 3.8.7.1 (and<br>the associated<br>Bases) | Battery Parameters, upper limit on battery float current value of [5] amps<br>Condition B, One or more batteries in one division with float current $>$ [5] amps.<br>Required Action B.2, Restore battery float current to $\leq$ [5] amps.<br>Condition F, One or more batteries in one division with one or more battery cells float voltage $<$ 2.07 V and float current $>$ [5] amps. SR 3.8.7.1, Verify each battery float current is $\leq$ [5] amps. |
| PTS 3.8.1<br>Required Actions<br>A.2 and B.2                                                                           | Limit on battery float current value of [5] amps                                                                                                                                                                                                                                                                                                                                                                                                            |
| PTS 5.5.8.d.2                                                                                                          | Air lock testing acceptance criteria are:<br>a) Overall air lock leakage rate is $\leq$ [0.05] La when tested at $\geq$ Pa,<br>b) For each door, leakage rate is $\leq$ [0.01] La when pressurized to $\geq$ [10] psig.                                                                                                                                                                                                                                     |