



Tennessee Valley Authority, 1101 Market Street, LP 5A, Chattanooga, Tennessee 37402-2801

August 20, 2008

10 CFR 52.79

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

In the Matter of )  
Tennessee Valley Authority )

Docket No. 52-014 and 52-015

**BELLEFONTE COMBINED LICENSE APPLICATION – RESPONSE TO REQUEST FOR  
ADDITIONAL INFORMATION – HUMAN FACTORS ENGINEERING**

Reference: Letter from Brian Anderson (NRC) to Andrea Sterdis (TVA), Request for  
Additional Information Letter No. 070 Related to SRP Section 18 for the  
Bellefonte Units 3 and 4 Combined License Application, dated July 11, 2008

This letter provides the Tennessee Valley Authority's (TVA) response to the Nuclear Regulatory  
Commission's (NRC) request for additional information (RAI) items included in the reference  
letter.

A response to the NRC request in the subject letter is addressed in the enclosure which does not  
identify any associated changes to be made in a future revision of the BLN application.

If you should have any questions, please contact Thomas Spink at 1101 Market Street, LP5A,  
Chattanooga, Tennessee 37402-2801, by telephone at (423) 751-7062, or via email at  
tespink@tva.gov.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 20<sup>th</sup> day of Aug, 2008.

Andrea L. Sterdis  
Manager, New Nuclear Licensing and Industry Affairs  
Nuclear Generation Development & Construction

Enclosure  
cc: See Page 2

D085  
HRO

Document Control Desk

Page 2

August 20, 2008

cc: (Enclosure)

B. C. Anderson, NRC/HQ  
J. P. Berger, EDF  
E. Cummins, Westinghouse  
S. P. Frantz, Morgan Lewis  
M.W. Gettler, FP&L  
R. C. Grumbir, NuStart  
P. S. Hastings, NuStart  
P. Hinnenkamp, Entergy  
M. C. Kray, NuStart  
D. Lindgren, Westinghouse  
G. D. Miller, PG&N  
M. C. Nolan, Duke Energy  
N. T. Simms, Duke Energy  
K. N. Slays, NuStart  
G. A. Zinke, NuStart

cc: (w/o Enclosure)

M. M. Comar, NRC/HQ  
B. Hughes, NRC/HQ  
R. G. Joshi, NRC/HQ  
R. H. Kitchen, PGN  
M. C. Kray, NuStart  
A. M. Monroe, SCE&G  
C. R. Pierce, SNC  
R. Reister, DOE/PM  
L. Reyes, NRC/RII  
T. Simms, NRC/HQ  
J. M. Sebrosky, NRC/HQ

Enclosure  
TVA letter dated August 20, 2008  
RAI Response

Response to NRC Request for Additional Information letter No. 070 dated July 11, 2008  
(2 pages, including this list)

Subject: Human Factors Engineering in the Final Safety Analysis Report

<u>RAI Number</u>	<u>Date of TVA Response</u>
18-01	This letter – see following pages

<u>Associated Additional Attachments / Enclosures</u>	<u>Pages Included</u>
None	

Enclosure  
TVA letter dated August 20, 2008  
RAI Response

**NRC Letter Dated: July 11, 2008**

**NRC Review of Final Safety Analysis Report**

**NRC RAI NUMBER: 18-01**

Reg. Guide 1.206 section C.I.18.10.3 states the FSAR should summarize the results of V&V activities, including identification and resolution of HEDs and the major conclusions from these activities along with their bases.

The staff recognizes that implementation plans as well as equipment design are not sufficiently developed to support providing this level of detail. In lieu of summarizing the results of V&V activities, RG 1.206 states that these activities should be clearly identified in terms of what remaining evaluations need to be performed, when they will be completed, and how their completion will be communicated to the staff. ITAAC Table 3.2-1 from Chapter 3.2 of the Tier 1 AP1000 DCD outlines evaluations to be completed and states that a report will be generated to document results. Please provide completion dates for these evaluations and a similar outline of any additional evaluations planned.

References: RG1.206 section C.III.1 pgs 189-190, section C.I.18.10

**BLN RAI ID: 0567**

**BLN RESPONSE:**

Development of implementation plans and equipment designs by Westinghouse is ongoing. The following have been completed by Westinghouse and are available for NRC review:

1. APP-OCS-GEH-120, "AP1000 Human Factors Engineering Design Verification Plan", Rev A
2. APP-OCS-GEH-220, "AP1000 Human Factors Engineering Task Support Verification Plan", Rev A
3. APP-OCS-GEH-320, "AP1000 Human Factors Engineering Integrated System Validation Plan", Rev A
4. APP-OCS-GEH-420, "AP1000 Human Factors Engineering Discrepancy Resolution Process", Rev A

Areas under development are:

1. Operational Sequence Task Analysis (OSA-2) - Target completion date: September 2009
2. Human System Interface (HSI) Design - Development of initial versions of design specs - Target completion date: March 2009
3. The plant HFE/HSI verification plan for HFE/HSI assessment at the time of plant startup - Target completion date: 2009/2010

This response is expected to be STANDARD for the S-COLAs.

**ASSOCIATED BLN COL APPLICATION REVISIONS:**

No COLA revisions have been identified associated with this response.

**ASSOCIATED ATTACHMENTS/ENCLOSURES:**

None