PMBelCOL PEmails

From: Brian Anderson
Sent: Tuesday, July 08, 2008 9:36 AM
To: pmray@tva.gov; erg-xl@cox.net; bobhirman@live.com; kslays@duke-energy.com
Cc: PMBelCOL PEmails; Brian Anderson
Subject: FW: Draft RAI for Bellefonte Ch 18
Attachments: RAI 357.doc

Importance: High

All,

I am forwarding the e-mail I previously sent related to draft eRAI 357. I did not send the original e-mail to everyone; my apologies for that oversight. Please include this draft eRAI for our conference call scheduled for July 11, 2008.

The July 11, 2008 conference call will discuss eRAIs 344, 351, and 357.

Thank you,
Brian

Brian Anderson
301-415-9967
US Nuclear Regulatory Commission
Office of New Reactors
Project Manager, AP1000 Projects Branch 1

From: Brian Anderson
Sent: Wednesday, June 11, 2008 10:09 AM
To: 'Ray, Phillip M'
Cc: Joseph Sebrosky; Brian Anderson; PMBelCOL PEmails
Subject: Draft RAI for Bellefonte Ch 18
Importance: High

Phil,

Attached is a draft RAI related to chapter 18 of Bellefonte FSAR (SRP Section: 18 - Human Factors Engineering). Please let me know if you require a call to discuss this in more detail.

In addition, please let me know if a conference call is needed to discuss the other two chapter 18 draft RAIs sent to you by Joe Sebrosky via e-mail on 6/4/08.

Thank you,
Brian

Brian Anderson
301-415-9967
US Nuclear Regulatory Commission
Office of New Reactors
Project Manager, AP1000 Projects Branch 1

Hearing Identifier: Bellefonte_COL_Public_EX
Email Number: 392

Mail Envelope Properties (CB87FC66F95637428C5E0D066E756B6F69FD387BEE)

Subject: FW: Draft RAI for Bellefonte Ch 18
Sent Date: 7/8/2008 9:35:33 AM
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From: Brian Anderson

Created By: Brian.Anderson@nrc.gov

Recipients:
"PMBelCOL PEmails" <PMBelCOL.PEmails@nrc.gov>
Tracking Status: None
"Brian Anderson" <Brian.Anderson@nrc.gov>
Tracking Status: None
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Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

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Options
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Reply Requested: No
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Request for Additional Information No. 357 Revision 0

Bellefonte Units 3 and 4
TVA
Docket No. 52-014 and 52-015
SRP Section: 18 - Human Factors Engineering
Application Section: 18.2

QUESTIONS

18-***

The applicant provided information in BLN COL 18.2-2 to resolve COL information item 18.2-2. COL information item 18.2-2 states:

"The Combined License applicant referencing the AP1000 certified design is responsible for designing the emergency operations facility, including specification of the location and communication with the facility, in accordance with the AP1000 human factors engineering program."

The action item indicates the EOF human factors design will be in accordance with the AP1000 program. This is acceptable to the staff. However, Westinghouse and the COL applicants are working towards establishing a graded application of the AP1000 HFE program to address this COL action item as described in the following reports:

- APP-OCS-GGR-110-P, "AP1000 Technical Support Center and Emergency Operations Facility Work Shop," revision 1, in February 2008
- APP-GW-GLR-136, "AP1000 Human Factors Program Implementation for the Emergency Operations Facility and Technical Support Center," revision 1, issued October 26, 2007 (TR-136)

It is presumed that Bellefonte, as the RCOL applicant, will follow this direction. The staff's review of the documentation associated with the graded approach identified the following areas where additional information is required.

1. NUREG-0800 states, "The applicant has an HFE design team with the responsibility, authority, placement within the organization, and composition to ensure that the design commitment to HFE is achieved." The staff requests additional information on team composition. Specifically, for each team member participating in the analysis of EOF/TSC functions, describe the experience that directly relates to EOF/TSC HFE program analysis. The following areas are of particular interest: HFE experience, TSC experience, EOF experience, and Operational Experience.

2. The task analysis described in TR-136 section 2.4.2 states, "This task analysis will cover all of the identified areas where the data and display available in the main control room may be utilized in TSC and/or EOF functions." A subsequent

sentence in the same section states that for completeness all task steps will be documented but those not associated with the display or provision of plant data will not be considered.

APS-OCS-GGR-110-P section 3.3, 4th paragraph states, "The development of additional displays is restricted to those that are required or useful in the MCR. If a potential display is deemed to be only required or useful in the TSC and/or EOF, the HFE scope is restricted to ensuring the data is made available to the TSC and EOF, and it does not include the display design."

Subsequent sentences state the COL applicant is best able to design these indications.

The staff requests clarification of the intent of these paragraphs and of the responsibilities ofWestinghouse and the COL applicant respectively. The staff also requests an explanation of why a task identified via the task analysis would not receive such treatment.

3. Section 2.4.2 states that the task analysis will be based on available existing TSC and EOF procedures. The staff requests a description of what measures will be taken to ensure there are sufficient procedures available so that all pertinent tasks are identified.

4. APP-OCS-GGR-110, rev 1, section 3.2.2 states, "Compliance to the guidelines will be checked as part of the design verification assessment of the MCR, although the TSC and EOF presentation is not within the scope of Westinghouse design verification assessment." The staff requests an explanation of how this verification and validation (V&V) process will be accomplished and who has responsibility for performing the V&V.

5. We have directed an RAI to Westinghouse concerning this matter and are also seeking an explanation from you in an effort to understand and resolve the matter. APP-OCS-GGR-110, rev 1, section 3.3 lists design activities that must be accomplished by the COL applicant. DCD revision 16 section 18.2.6.2 appears contradictory in that it deletes the phrase, "COL applicants…are responsible for designing the emergency operations facility." The staff requests that TVA provide additional basis for why the phrase was or will be deleted in DCD revision 16 given the additional work it requires of the COL applicant. The staff also requests additional information concerning what, if any, changes will be made to the COL information Item concerning the EOF/TSC HFE design.

6. The staff requests additional information concerning the applicant's definition of a "graded application" of the AP1000 HFE program with specific focus on the provision of data and display design as defined in the design certification.

7. APP-OCS-GGR-110, rev 1, Appendix B, "Summary List of Actions and Agreements," provides due dates for completion of actions. The staff requests an updated schedule for completion of the identified actions and the availability of any summary reports concerning the COL departure.