

BellefonteRAIsPEm Resource

From: Ravindra Joshi
Sent: Friday, June 06, 2008 8:32 AM
To: BellefonteRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 031 RELATED TO SRP SECTION 11.02 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION
Attachments: BEL-RAI-LTR-031.doc

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Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 031
RELATED TO SRP SECTION 11.02 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED
LICENSE APPLICATION

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From: Ravindra Joshi

Created By: Ravindra.Joshi@nrc.gov

Recipients:

"BellefonteRAIsPEm Resource" <BellefonteRAIsPEm.Resource@nrc.gov>

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Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received:

June 6, 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. 031 RELATED TO
SRP SECTION 11.02 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED
LICENSE APPLICATION

Dear Ms. Sterdis:

By letter dated September 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 45 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 301-415-6191 or you may contact Joseph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

/RA/

Ravindra G. Joshi, 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

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-6191 or you may contact Joesph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

/RA/

Ravindra G. Joshi, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-014
52-015
eRAI Tracking No. 302, 303, 304, and 305

Enclosure:
Request for Additional Information

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NRO-002

OFFICE	SFPT/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	TFrye *	RJoshi*	PMoulding*	JSebrosky*
DATE	5/15/08	5/23/08	5/29/08	5/29/08

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Bellefonte Units 3 and 4
Tennessee Valley Authority
Docket No. 52-014 and 52-015
SRP Section: 11.02 – Liquid Waste Management Systems
Application Section: FSAR 11.2

QUESTIONS from Health Physics Branch (CHPB)

11.02-1

FSAR Sections 11.2.3.5.2 and 11.2.5.2 (including BLN COL Item 11.2-2) reference draft NEI Template 07-11 as the basis of the cost-benefit analysis for justifying, in part, the design of the Liquid Waste Management System (LWMS). The NEI template proposed a bounding envelope of population doses associated with liquid effluent releases, which, if met, would demonstrate compliance with ALARA cost-benefit requirements of Section II.D of Appendix I to Part 50. However, NEI Template 07-11 was withdrawn from further consideration by NEI. Accordingly, please explain how the applicant intends to develop a plant and site-specific cost-benefit analysis demonstrating compliance with Section II.D of Appendix I to Part 50 with respect to the LWMS, and provide sufficient information for the staff to evaluate the bases and assumptions used in the analysis against the applicable NRC regulations and guidance.

11.02-2

Please explain how the application demonstrates that the site can meet the general environmental radiation standard in 40 CFR Part 190 (per 10 CFR 20.1301(e)), and provide sufficient information for the staff to evaluate the bases and assumptions used in the applicant's analysis. Please incorporate this analysis into the FSAR or justify its exclusion.

11.02-3

Please provide detailed information to enable the staff to validate and verify the estimated doses in FSAR section 11.2.3.5 with respect to the dose objectives of Appendix I to 10 CFR Part 50 and the dose limits in 10 CFR 20.1301(e); please revise the FSAR to include this information, or justify its exclusion. The information should include the following:

- A complete description of how the applicant derived all the values listed in Tables 11.2-201 and 11.2-202, including all assumptions made
- Citations to any reference material used (for documents not publicly available please provide a copy for staff's use)
- Detailed breakdown of individual doses by pathway and organ
- Detailed breakdown of population doses by pathway and organ

11.02-4

Section 11.2.3.5 states that the irrigation pathway was not evaluated because no irrigation of crops was identified downstream of the Bellefonte Units. Please discuss whether this approach to irrigation considers that individual users of public water that is withdrawn from downstream locations may use the water to irrigate their gardens. With respect to FSAR section 11.2.3.5, please explain whether the individual dose estimates should include this pathway and, if so, please include irrigation doses and provide calculations of sufficient detail for the staff to validate and verify the results.