PMBelCOL PEmails

From: Stephanie Coffin
Sent: Wednesday, October 22, 2008 2:17 PM
To: Christopher Cook; Joseph Sebrosky
Subject: FW: TVA letter on Hydrology PMF issue
Attachments: NRHydrology Information Contained in FSAR Section 2 4. ws TVApdf.pdf

Importance: High

From: Sterdis, Andrea Lynn [mailto:alsterdis@tva.gov]
Sent: Wednesday, October 22, 2008 1:17 PM
To: Scott Flanders; David Matthews; Stephanie Coffin; Thomas Bergman
Cc: Bailey, Jack A; Bhatnagar, Ashok S
Subject: TVA letter on Hydrology PMF issue

The attached letter is provided as a courtesy email copy of today's TVA letter on the BLN COL Application Probable Maximum Flood level calculation. An email version has been provided to Michael Johnson as well. Formal hardcopies are being Fed Ex'd today.
If you have any questions, please do not hesitate to call me.
Andrea

Andrea L. Sterdis

Manager, Nuclear Licensing & Industry Affairs
TVA, Nuclear Generation Development & Construction
Office: 423/751-7119
Mobile: 423/494-8181
Email: alsterdis@tva.gov

Hearing Identifier: Bellefonte_COL_Public_EX
Email Number: 1203

Mail Envelope Properties (3AF7DEF82ADA8944AD8247B7ED7FD6517BFBFF6DDF)

Subject: FW: TVA letter on Hydrology PMF issue
Sent Date: 10/22/2008 2:17:10 PM
Received Date: 10/22/2008 2:17:13 PM
From: Stephanie Coffin

Created By: Stephanie.Coffin@nrc.gov

Recipients:
"Christopher Cook" <Christopher.Cook@nrc.gov>
Tracking Status: None
"Joseph Sebrosky" <Joseph.Sebrosky@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**	
MESSAGE	862	10/22/2008 2:17:13 PM	
NRHydrology Information Contained in FSAR Section 2 4. ws TVApdf.pdf			281709

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

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

October 22, 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 – REVIEW OF HYDROLOGY INFORMATION CONTAINED IN FSAR SECTION 2.4

References:

1) Letter from Ashok Bhatnagar, Tennessee Valley Authority (TVA) to R. William Borchardt Nuclear Regulatory Commission (NRC), Application for Combined License for BLN Units 3 and 4, dated October 30, 2007.

2) Letter from David B. Matthews (NRC) to Ashok Bhatnagar (TVA), Acceptance Review for Combined License for Bellefonte Units 3 and 4 Application, dated January 18, 2008.

3) Letter from Patrick L. Hiland (NRC) to Ashok Bhatnagar (TVA), Bellefonte Combined License Application – Nuclear Regulatory Commission Inspection of the Implementation of the Quality Assurance Program Governing the Simulated Open Channel Hydraulics Model – Inspection Report Numbers 05200014/2008-001 and 05200015/2008-001 and Notice of Violation, dated March 19, 2008.

4) Letter from Andrea L. Sterdis (TVA) to Nuclear Regulatory Commission, Bellefonte Combined License Application – NRC Inspection Report No. 05200014/2008-001 and 05200015/2008-001 – Response to Notice of Violation (NOV), dated April 18, 2008.

5) Letter from Andrea L. Sterdis (TVA) to Nuclear Regulatory Commission, Bellefonte Combined License Application – Hydrology Schedule Update and Proposed Review Process, dated June 30, 2008.

6) Letter from Andrea L. Sterdis (TVA) to Nuclear Regulatory Commission, Bellefonte Combined License Application – Hydrology Probable Maximum Flood Level Schedule Interim Milestones, dated July 10, 2008.

7) Letter from Thomas A. Bergman (NRC) to Ashok Bhatnagar (TVA), Bellefonte Units 3 and 4 Combined License Application Review Schedule, dated July 17, 2008.

The purpose of this letter is to request that the NRC reschedule its review of Section 2.4 of TVA's Final Safety Analysis Report (FSAR) submitted as part of the Combined License (COL) application for Bellefonte Units 3 and 4 to the first quarter of fiscal year (FY) 2010. This request does not affect any other portion of the referenced COL application.

Based on the developments discussed below, TVA has been unsuccessful to this point in providing the NRC with the information necessary for a detailed review of FSAR Section 2.4. Recognizing this, as well as the fact that NRC's review resources may be best utilized elsewhere while TVA generates the additional information requested by NRC, TVA respectfully requests that the NRC reschedule and resume its review in this particular area of the COL application beginning in FY 2010.

Background

In October 2007, TVA submitted a COL application for two AP1000 reactors at the Bellefonte site near Scottsboro, Alabama, designated as BLN 3 & 4 (Reference 1). The NRC subsequently docketed the BLN 3&4 COL application for review, after determining that the application was sufficient for initiation of NRC staff review (Reference 2). In the NRC staff's January 2008 docketing letter, the staff noted that additional information would be required regarding the design basis flood calculation supporting the Probable Maximum Flood (PMF) level included in the application to allow the staff to establish a review schedule for the FSAR section that includes the PMF design basis level (FSAR Section 2.4).

The NRC conducted an inspection of quality assurance (QA) for the calculation supporting the PMF level documented in the COL application in February 2008, during which three QA violations regarding verification and validation of the computer code and input for the code used in the PMF calculation were identified (Reference 3). In response, TVA developed a response plan ("Plan") and corresponding implementation schedule to address and correct the identified deficiencies (Reference 4). TVA's Plan focused on two major tasks:

- Verify and validate the code that is used to perform the PMF calculation in accordance with TVA's procedure for development and use of QA software (SPP 2.6)
- Verify and/or update the river system data and modeling that is used by the code in order to confirm the calculated PMF level for the Bellefonte site

Recent Developments

In the time since TVA established the initial plan and schedule in March 2008, TVA has not been able to meet many of the schedule deliverable milestones established in its Plan and has had to revise the schedule (References 5 and 6). TVA based these preliminary schedules for providing information to the NRC to support review of FSAR Section 2.4 on certain unverified assumptions regarding the detailed tasks involved and included anticipated, but not assigned, resources. In addition, TVA's efforts to implement the Plan have resulted in a significant change in the understanding of the effort necessary to verify the data and the model. The age of the data accumulated over years of TVA river system operations has also required additional data verification tasks to ensure that all data meets current TVA quality standards.

Generation of the first data package has confirmed that the original modeling data that supports the existing PMF level calculation is sound. However, providing the detailed supporting data, geometry/channel modeling packages and dam rating curves in documented and independently verified data sets will require a greater effort than originally anticipated.

In light of the experience gained to date, TVA has implemented significant project steps to ensure that it provides acceptable-quality information to the NRC in accordance with a predictable schedule. For example, TVA has:

- Assigned a dedicated senior Project Manager in addition to a dedicated Project Engineer to oversee these efforts;
- Applied a pilot program to determine actual time estimates for future activities of a similar nature;
- Applied additional resources, with approximately 50 full-time equivalent resources currently supporting this effort (from an overall assigned staff of 70 individuals);
- Developed a resource-loaded and logic-tied schedule;
- Applied a management reserve to the schedule; and
- Implemented more frequent Senior Management oversight and project review meetings to ensure implementation according to the Plan.

TVA has confidence in the revised Plan schedule based on the substantial experience gained since these preliminary schedules were established, and now has a more complete understanding of the level of effort that will be required to supply adequate information to the NRC for their review.

In July 2008, the NRC indicated that it would re-evaluate the existing schedule for review of the PMF section of the COL application in December 2008, based on TVA's overall performance against established schedule milestones (Reference 7). Based on TVA's current understanding of the time and effort necessary to provide the required information, TVA believes that there is no need for NRC review resources for the BLN COLA FSAR Section 2.4 until the first quarter of FY 2010.

TVA's Revised Plan

TVA is proposing to update the NRC with progress against the revised plan milestones on a regular basis. TVA anticipates that by the second quarter of FY 2009, sufficient progress will have occurred to verify confidence in the revised schedule and allow for TVA and NRC staff to discuss re-engagement of NRC review resources based on completion of the remaining deliverables and availability of NRC review resources.

While TVA regrets that it has been unable to provide this information on the schedules proposed, it remains committed to aggressively pursuing resolution of this issue. TVA recognizes that the hydrology PMF level modeling is Bellefonte site specific and represents a relatively small portion of the overall COL application review. The majority of the content under review by the NRC is focused on generic information that each AP1000 applicant will use. TVA wants to ensure that it provides the necessary information to support NRC's review of site-specific Section 2.4 without impacting the remainder of the COLA review.

TVA appreciates your consideration of this request. If you have any questions, please contact Andrea Sterdis at 1101 Market Street, LP5A, Chattanooga, Tennessee, 37402-2801, by telephone at (423) 751-7119, or via email at alsterdis@tva.gov.

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

Executed on this 22nd day of Oct, 2008.

Jack A. Bailey

Jack A. Bailey
Vice President, Nuclear Generation Development

cc: See Page 5

cc: M. R. Johnson, NRC/HQ
J. P. Berger, EDF
T. A. Bergman, NRC/HQ
S. M. Coffin, NRC/HQ
J. M. Sebrosky, NRC/HQ
E. Cummins, Westinghouse
S. C. Flanders, NRC/HQ
S. P. Frantz, Morgan Lewis
M. W. Gettler, FP&L
R. Grumbir, NuStart
P. S. Hastings, NuStart
P. Hinnenkamp, Entergy
R. G. Joshi, NRC/HQ
R. H. Kitchen, PGN
M. C. Kray, NuStart
D. B. Matthews, NRC/HQ
G. D. Miller, PG&N
A. M. Monroe, SCE&G
M. C. Nolan, Duke Energy
C. R. Pierce, SNC
R. Reister, DOE/PM
L. Reyes, NRC/RII
N. T. Simms, Duke Energy
G. A. Zinke, NuStart