PMBelCOL PEmails

From: Spink, Thomas E [tespink@tva.gov]
Sent: Tuesday, January 27, 2009 2:04 PM
To: Joseph Sebrosky
Cc: Eddie.Grant@excelservices.com; Sterdis, Andrea Lynn; Ryan, William T III
Subject: Courtesy email copy of TVA's supplement 2 to RAI Letter 94
Attachments: BLN RAI Response to RAI Letter 094 S2 final 20090126.pdf

Joe,

I have enclosed a PDF copy of our response to RAI Letter 94 Supplement 2 with this email as a courtesy. As always, the official submittal has been submitted to the Document Control Desk via paper copy using Federal Express services. The paper copy should arrive on January 28, 2009. The official transmittal includes a CD with PAVAN and ARCON 96 input files.

If you have any questions, please do not hesitate to call me.

Thomas E. Spink

Licensing Project Manager
Nuclear Generation Development
1101 Market Street, LP 5A
Chattanooga, TN 37402
423-751-7062; FAX (423) 751-6509

Hearing Identifier: Bellefonte_COL_Public_EX
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Subject: Courtesy email copy of TVA's supplement 2 to RAI Letter 94
Sent Date: 1/27/2009 2:04:14 PM
Received Date: 1/27/2009 2:04:46 PM
From: Spink, Thomas E

Created By: tespink@tva.gov

Recipients:
"Eddie.Grant@excelservices.com" <Eddie.Grant@excelservices.com>
Tracking Status: None
"Sterdis, Andrea Lynn" <alsterdis@tva.gov>
Tracking Status: None
"Ryan, William T III" <wtryan@tva.gov>
Tracking Status: None
"Joseph Sebrosky" <Joseph.Sebrosky@nrc.gov>
Tracking Status: None

Post Office: TVACOCXVS2.main.tva.gov

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MESSAGE	619	1/27/2009 2:04:46 PM
BLN RAI Response to RAI Letter 094 S2 final 20090126.pdf	217219	

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Priority: Standard
Return Notification: No
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Sensitivity: Normal
Expiration Date:
Recipients Received:

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

January 27, 2009

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 – SHORT TERM DIFFUSION ESTIMATES

References:

1) Letter from Joseph M. Sebrosky (NRC) to Andrea L. Sterdis (TVA), Request for Additional Information Letter No. 94 Related to SRP Section 2.3.4 for the Bellefonte Units 3 and 4 Combined License Application, dated August 1, 2008

2) Letter from Jack Bailey (TVA) to Document Control Desk (NRC), Bellefonte Combined License Application – Response to Request for Additional Information – Short Term Diffusion Estimates, dated August 29, 2008

3) Letter from Andrea L. Sterdis (TVA) to Document Control Desk (NRC), Bellefonte Combined License Application – Response to Request for Additional Information – Short Term Diffusion Estimates, dated October 20, 2008

This letter provides the Tennessee Valley Authority's (TVA) supplemental response to the Nuclear Regulatory Commission's (NRC) request for additional information (RAI) items 02.03.04-01 and 02.03.04-03 included in Reference 1 and originally responded to in Reference 2. Reference 3 provided a re-submittal of corrupted data files contained in Attachment 02.03.04-03A of TVA's original response.

A response to each NRC request in the reference letter is addressed in the enclosure which also identifies any associated changes that will be made in a future revision of the BLN application. Please note that this transmittal includes a CD data disk that contains input files necessary for the NRC Staff to perform confirmatory analyses.

If you should have any questions, please contact Tom 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 27th day of Jan, 2009.

Andrea L. Sterdis
Vice President, Nuclear Generation Development

Enclosure
cc: See Page 3

cc: (w/ Enclosures)
J. P. Berger, EDF
J. M. Sebrosky, NRC/HQ
E. Cummins, Westinghouse
S. P. Frantz, Morgan Lewis
M. W. Gettler, FP&L
R. 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)
B. C. Anderson, NRC/HQ
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

Enclosure
TVA letter dated January 27, 2009
RAI Responses

Responses to NRC Request for Additional Information letter No. 94 dated August 1, 2008
(3 pages, including this list)

Subject: Short Term Diffusion Estimates in the Final Safety Analysis Report

RAI Number	Date of TVA Response
02.03.04-01	August 26, 2008; Supplemental information in this letter – see following pages
02.03.04-02	August 26, 2008
02.03.04-03	August 26, 2008; October 20, 2008; Supplemental information in this letter – see following pages
02.03.04-04	August 26, 2008

Associated Additional Attachments / Enclosures	Pages Included
02.03.04-01A	1
02.03.04-03A	1

NRC Letter Dated: August 1, 2008

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 02.03.04-01

Regulatory Guide 1.206 states that the applicant should discuss the effects of topography on the short-term dispersion estimates. Please provide a revision to the Bellefonte FSAR that discusses the hill and valley topography near the Bellefonte site with respect to calculation of the short term atmospheric dispersion factors (χ/Q values). Were terrain recirculation factors or other adjustments used in the PAVAN calculations? What is the basis for the selected assumptions and inputs? The information provided should be sufficient to allow the NRC staff to perform its own confirmatory calculations. Consider providing the computer input files as part of the response.

BLN RAI ID: 2792

BLN RESPONSE:

A revision to the Bellefonte FSAR has been prepared, as requested, which addresses the hill and valley topography near the Bellefonte site with respect to calculation of the short term atmospheric dispersion factors (χ/Q values). The revisions are shown in the Application Revisions section below.

The computer program, PAVAN (see NUREG/CR-2858), was used to determine the Bellefonte short term atmospheric dispersion factors. The PAVAN input file that was used is provided as Attachment 02.03.04-01A.

The PAVAN input files for the combined two years of meteorological data are provided in Attachment 02.03.04-01B.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA revisions identified with the original response have been incorporated into Revision 1 of the FSAR. No additional revisions are necessary.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment 02.03.04-01A – PAVAN Input File (previously provided)

Attachment 02.03.04-01B – PAVAN Input Files for two years of met data (on enclosed CD)

NRC Letter Dated: August 1, 2008

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 02.03.04-03

Page 2.3-32 of the Bellefonte FSAR states that releases to the control room were assumed to be point ground level releases. However, footnote d on page 2.0-11 notes that the ground level containment release point X/Q values shown on page 2.0-10 model the containment shell as a diffuse area source. Page 2.3-201 provides the distance and direction from each postulated release location to the control room HAVC. Please provide a revision to the Bellefonte FSAR listing all other inputs used in generating the control room X/Q values to clarify how the X/Q values for each source/receptor pair were calculated. Consider providing the computer input files as part of the response.

BLN RAI ID: 2793

BLN RESPONSE:

Releases were conservatively assumed to be ground level point source releases except for the containment shell, which was modeled as a diffuse area source. No credit was taken for elevated or vent releases in the determination of control room χ/Qs in accordance with the guidance provided in Regulatory Guide 1.194. The discussion in the BLN FSAR is revised to clarify this point and to provide additional information needed in the determination of control room χ/Qs. The ARCON96 input files and the meteorological data file are provided in Attachment 02.03.04-03A of this RAI.

The ARCON96 input files for the combined two years of meteorological data are provided in Attachment 02.03.04-03B.

This response is PLANT-SPECIFIC

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA revisions identified with the original response have been incorporated into Revision 1 of the FSAR. No additional revisions are necessary.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment 02.03.04-03A – ARCON96 input files and the meteorological data file (previously provided)

Attachment 02.03.04-03B – ARCON96 Input Files for two years of met data (on enclosed CD)

Attachment 02.03.04-01B

(1 page)

PAVAN input files on CD

(Based on two years of met data)

(cover page and CD)

Files included on the CD are:

BLN2YR15.IN

Attachment 02.03.04-03B

(1 page)

ARCON96 input files on CD

(Based on two years of met data)

(cover page and CD)

Files included on the CD are:

BAN-CAR3.rsf
BAN-CNT3.rsf
BAN-FBP3.rsf
BAN-PCS3.rsf
BAN-PRV3.rsf
BAN-PV3.rsf
BAN-RWD3.rsf
BAN-SV3.rsf
BCR-CAR3.rsf
BCR-CNT3.rsf
BCR-FBP3.rsf
BCR-PCS3.rsf
BCR-PRV3.rsf
BCR-PV3.rsf
BCR-RWD3.rsf
BCR-SV3.rsf