

PMBeCOL PEmails

From: Joseph Sebrosky
Sent: Wednesday, July 16, 2008 8:39 AM
To: 'rgrumbir@gmail.com'; 'alsterdis@tva.gov'; 'erg-xl@cox.net'; 'pshastings@duke-energy.com'; 'Ray, Phillip M'; 'kslays@duke-energy.com'; 'Bob Hirmanpour'
Cc: PMBeCOL PEmails; Mark Thaggard; Brian Hughes; RidsNroDnrINwe1 Resource; Stephanie Coffin; Manny Comar; RidsNroLAKGoldstein Resource; Tanya Simms; Ann Hodgdon; RidsOgcMailCenter Resource; Ravindra Joshi; RidsAcrcAcnw_MailCTR Resource; Patrick Moulding; RidsRgn2MailCenter Resource; Kenneth See; Christopher Cook; Mark McBride
Subject: RAI Letter No. 072 Related SRP Section 2.4.12 AND RAI Letter no 073 related to SRP Section 2.4.13 for Bellefonte Units 3 and 4
Attachments: BLN-RAI-LTR-72.PDF; BLN-RAI-LTR-73.PDF

To All,

Attached are RAI Letter Nos. 072 and 073 related to SRP Sections 2.4.12 and 2.4.13, respectively for Bellefonte Units 3 and 4. The ADAMS accession number for the documents are ML081980026 and ML081980027.

Sincerely,

Joseph Sebrosky

Hearing Identifier: Bellefonte_COL_Public_EX
Email Number: 425

Mail Envelope Properties (C4A4C9A16294FB4CBA5A36312D05FFAC0A9CAC8CEE)

Subject: RAI Letter No. 072 Related SRP Section 2.4.12 AND RAI Letter no 073 related to SRP Section 2.4.13 for Bellefonte Units 3 and 4
Sent Date: 7/16/2008 8:39:27 AM
Received Date: 7/16/2008 8:39:29 AM
From: Joseph Sebrosky

Created By: Joseph.Sebrosky@nrc.gov

Recipients:

"PMBelCOL PEmails" <PMBelCOL.PEmails@nrc.gov>
Tracking Status: None
"Mark Thaggard" <Mark.Thaggard@nrc.gov>
Tracking Status: None
"Brian Hughes" <Brian.Hughes@nrc.gov>
Tracking Status: None
"RidsNroDnrlNwe1 Resource" <RidsNroDnrlNwe1.Resource@nrc.gov>
Tracking Status: None
"Stephanie Coffin" <Stephanie.Coffin@nrc.gov>
Tracking Status: None
"Manny Comar" <Manny.Comar@nrc.gov>
Tracking Status: None
"RidsNroLAKGoldstein Resource" <RidsNroLAKGoldstein.Resource@nrc.gov>
Tracking Status: None
"Tanya Simms" <Tanya.Simms@nrc.gov>
Tracking Status: None
"Ann Hodgdon" <Ann.Hodgdon@nrc.gov>
Tracking Status: None
"RidsOgcMailCenter Resource" <RidsOgcMailCenter.Resource@nrc.gov>
Tracking Status: None
"Ravindra Joshi" <Ravindra.Joshi@nrc.gov>
Tracking Status: None
"RidsAcrcAcnw_MailCTR Resource" <RidsAcrcAcnw_MailCTR.Resource@nrc.gov>
Tracking Status: None
"Patrick Moulding" <Patrick.Moulding@nrc.gov>
Tracking Status: None
"RidsRgn2MailCenter Resource" <RidsRgn2MailCenter.Resource@nrc.gov>
Tracking Status: None
"Kenneth See" <Kenneth.See@nrc.gov>
Tracking Status: None
"Christopher Cook" <Christopher.Cook@nrc.gov>
Tracking Status: None
"Mark McBride" <Mark.McBride@nrc.gov>
Tracking Status: None
"rgrumbir@gmail.com" <rgrumbir@gmail.com>
Tracking Status: None
"alsterdis@tva.gov" <alsterdis@tva.gov>
Tracking Status: None
"erg-xl@cox.net" <erg-xl@cox.net>
Tracking Status: None

"pshastings@duke-energy.com" <pshastings@duke-energy.com>

Tracking Status: None

"Ray, Phillip M" <pmray@tva.gov>

Tracking Status: None

"kslays@duke-energy.com" <kslays@duke-energy.com>

Tracking Status: None

"Bob Hirmanpour" <bobhirman@live.com>

Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	271	7/16/2008 8:39:29 AM
BLN-RAI-LTR-72.PDF	155735	
BLN-RAI-LTR-73.PDF	155801	

Options

Priority: Standard

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date:

Recipients Received:

BellefonteRAIsPEm Resource

From: Joseph Sebrosky
Sent: Wednesday, July 16, 2008 7:34 AM
To: BellefonteRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 072 RELATED TO SRP SECTION 2.4.12 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION
Attachments: BLN-RAI-LTR-072.doc

Hearing Identifier: Bellefonte_COL_RAI_Public
Email Number: 50

Mail Envelope Properties (C4A4C9A16294FB4CBA5A36312D05FFAC0A9CAC8B44)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 072 RELATED TO SRP SECTION 2.4.12 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION
Sent Date: 7/16/2008 7:34:04 AM
Received Date: 7/16/2008 7:34:27 AM
From: Joseph Sebrosky

Created By: Joseph.Sebrosky@nrc.gov

Recipients:
"BellefonteRAIsPEm Resource" <BellefonteRAIsPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	3	7/16/2008 7:34:27 AM
BLN-RAI-LTR-072.doc	51310	

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

July 16, 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. 072 RELATED TO
SRP SECTION 2.4.12 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED
LICENSE APPLICATION

Dear Ms. Sterdis:

By letter dated October 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 30 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 301-415-1132.

Sincerely,

/RA/

Joseph M. Sebrosky, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-014
52-015

eRAI Tracking No. 521

Enclosure:
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-1132.

Sincerely,

/RA/

Joseph M. Sebrosky, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-014
52-015

eRAI Tracking No. 521

Enclosure:
Request for Additional Information

Distribution:

Public	MThaggard	BHughes
RidsNroDnrlNwe1	SCoffin	MComar
RidsNroLAKGoldstein	TSimms	AHodgdon
RidsOgcMailCenter	RJoshi	KSee
RidsAcrcAcnwMailCenter	PMoulding	CCook
RidsRgn2MailCenter	MMcBride	
JSebrosky		

NRO-002

OFFICE	RHEB*	RHEB/BC*		OGC	NWE1/L-PM
NAME	MMcBride	MThaggard		AHodgdon*	JSebrosky*
DATE	06/19/08	06/19/08		06/30/08	07/16/08

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

**Request for Additional Information
Bellefonte Units 3 and 4
Tennessee Valley Authority
Docket No. 52-014 and 52-015
SRP Section: 02.04.12 - Groundwater
Application Section: 2.4.12**

QUESTIONS from Hydrologic Engineering Branch

02.04.12-7

Describe how the applicant determined that the conceptual site model of the subsurface environment of the Bellefonte site is the most conservative conceptual model that is plausible for this site. This description should focus on the process that was used for the determination rather than the details of the resulting site model, which are discussed elsewhere in the application. Examples of elements that may be relevant to this description (but were not necessarily required) include: work plans for site characterization; management controls and processes for implementation of work plans; kinds of technical specialists involved in developing the model, and how they interacted; iterative processes for improving the model based on field evidence; reviews of technical literature; generally accepted conceptual models of the depositional environments in which the subsurface materials were formed; mathematical or computer models of groundwater levels and flow; processes used to integrate different kinds of evidence into comprehensive models; exploration of possible extreme conditions, for example the widest plausible range of groundwater flow directions, and the conditions under which reversals of flow direction may occur; sensitivity analyses; and the process used for preparing the final description of the conceptual model.

Enclosure

BellefonteRAIsPEm Resource

From: Joseph Sebrosky
Sent: Wednesday, July 16, 2008 7:35 AM
To: BellefonteRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 073 RELATED TO SRP SECTION 2.4.13 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION
Attachments: BLN-RAI-LTR-073.doc

Hearing Identifier: Bellefonte_COL_RAI_Public
Email Number: 51

Mail Envelope Properties (C4A4C9A16294FB4CBA5A36312D05FFAC0A9CAC8B4B)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 073 RELATED TO SRP SECTION 2.4.13 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION
Sent Date: 7/16/2008 7:35:10 AM
Received Date: 7/16/2008 7:35:32 AM
From: Joseph Sebrosky

Created By: Joseph.Sebrosky@nrc.gov

Recipients:
"BellefonteRAIsPEm Resource" <BellefonteRAIsPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	3	7/16/2008 7:35:32 AM
BLN-RAI-LTR-073.doc	51310	

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

July 16, 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. 073 RELATED TO
SRP SECTION 2.4.13 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED
LICENSE APPLICATION

Dear Ms. Sterdis:

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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 30 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 301-415-1132.

Sincerely,

/RA/

Joseph M. Sebrosky, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-014
52-015

eRAI Tracking No. 522

Enclosure:
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-1132.

Sincerely,

/RA/

Joseph M. Sebrosky, Senior Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-014
52-015

eRAI Tracking No. 522

Enclosure:
Request for Additional Information

Distribution:

Public	MThaggard	BHughes
RidsNroDnrlNwe1	SCoffin	MComar
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RidsOgcMailCenter	RJoshi	KSee
RidsAcrcAcnwMailCenter	PMoulding	CCook
RidsRgn2MailCenter	MMcBride	
JSebrosky		

NRO-002

OFFICE	RHEB*	RHEB/BC*		OGC	NWE1/L-PM
NAME	MMcBride	MThaggard		AHodgdon*	JSebrosky*
DATE	06/19/08	06/19/08		06/30/08	07/16/08

*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

**Request for Additional Information
Bellefonte Units 3 and 4
Tennessee Valley Authority
Docket No. 52-014 and 52-015
SRP Section: 02.04.13 - Accidental Releases of Radioactive Liquid Effluents in Ground and
Surface Waters
Application Section: 2.4.13**

QUESTIONS from Hydrologic Engineering Branch

02.04.13-5

Describe how the applicant determined that the analysis of the dose consequences of an accidental release was bounding, in the sense of being the most extreme plausible dose consistent with the conceptual site model of the subsurface, with assumptions regarding the radionuclide source term associated with the accidental release, and with the physical processes in the subsurface environment that govern transport of radionuclides. This description should focus on the process that was used for the determination rather than the details of the resulting dose consequences, which are discussed elsewhere in the application. Examples of elements that may be relevant to this description (but are not necessarily required) include: work plans for the analysis of accidental release consequences; management controls and processes for implementation of work plans; kinds of technical specialists involved in developing the analysis, and how they interacted; reviews of technical literature; the manner in which the conceptual model of the subsurface was used in the analysis; how measurements of material properties such as K_d were integrated into the analysis; exploration of possible extreme conditions or assumptions; sensitivity analyses; and the process used for preparing the final description of the results of the analysis.

Enclosure