PMBelCOL PEmails

From: Ravindra Joshi
Sent: Tuesday, July 29, 2008 4:31 PM
To: andrea sterdis; bob Hirman; Eddie R Grant; Hastings, Peter S; Kim Slays; Ray, Phillip M; rgrumbir@gmail.com
Cc: Stephanie Coffin; Rebecca Karas; Yong Li; Patrick Moulding; Ann Hodgdon; Clifford Munson; BelCol Resource; RidsNroDnrlNwe1 Resource; RidsNroLAKGoldstein Resource; RidsOgcMailCenter Resource; RidsRgn2MailCenter Resource; RidsAcrsAcnw_MailCTR Resource; Brian Anderson; Brian Hughes; Christian Araguas; Joseph Sebrosky; Manny Comar; Tanya Simms
Subject: Request for additional information Letter no. 090 related to SRP section 2.5.3--Bellefonte units 3 and 4.
Attachments: BEL-RAI-LTR-090.pdf

To All,
Attached is RAI letter No.090 related to SRP Section 2.5.3 for the Bellefonte Units 3 and 4. The ADAMS Accession number is ML082110530.

Ravindra G. Joshi
Project Manager
NRO/DNRL/NWE1
US NRC
301-415-6191

Hearing Identifier: Bellefonte_COL_Public_EX
Email Number: 715

Mail Envelope Properties (CEEA97CC21430049B821E684512F6E5E979C5D061F)

Subject: Request for additional information Letter no. 090 related to SRP section 2.5.3--Bellefonte units 3 and 4.
Sent Date: 7/29/2008 4:31:01 PM
Received Date: 7/29/2008 4:31:04 PM
From: Ravindra Joshi

Created By: Ravindra.Joshi@nrc.gov

Recipients:
"Stephanie Coffin" <Stephanie.Coffin@nrc.gov>
Tracking Status: None
"Rebecca Karas" <Rebecca.Karas@nrc.gov>
Tracking Status: None
"Yong Li" <Yong.Li@nrc.gov>
Tracking Status: None
"Patrick Moulding" <Patrick.Moulding@nrc.gov>
Tracking Status: None
"Ann Hodgdon" <Ann.Hodgdon@nrc.gov>
Tracking Status: None
"Clifford Munson" <Clifford.Munson@nrc.gov>
Tracking Status: None
"BelCol Resource" <BelCol.Resource@nrc.gov>
Tracking Status: None
"RidsNroDnrlNwe1 Resource" <RidsNroDnrlNwe1.Resource@nrc.gov>
Tracking Status: None
"RidsNroLAKGoldstein Resource" <RidsNroLAKGoldstein.Resource@nrc.gov>
Tracking Status: None
"RidsOgcMailCenter Resource" <RidsOgcMailCenter.Resource@nrc.gov>
Tracking Status: None
"RidsRgn2MailCenter Resource" <RidsRgn2MailCenter.Resource@nrc.gov>
Tracking Status: None
"RidsAcrsAcnw_MailCTR Resource" <RidsAcrsAcnw_MailCTR.Resource@nrc.gov>
Tracking Status: None
"Brian Anderson" <Brian.Anderson@nrc.gov>
Tracking Status: None
"Brian Hughes" <Brian.Hughes@nrc.gov>
Tracking Status: None
"Christian Araguas" <Christian.Araguas@nrc.gov>
Tracking Status: None
"Joseph Sebrosky" <Joseph.Sebrosky@nrc.gov>
Tracking Status: None
"Manny Comar" <Manny.Comar@nrc.gov>
Tracking Status: None
"Tanya Simms" <Tanya.Simms@nrc.gov>
Tracking Status: None
"andrea sterdis" <alsterdis@tva.gov>
Tracking Status: None
"bob Hirman" <bobhirman@live.com>
Tracking Status: None

"Eddie R Grant" <erg-xl@cox.net>
Tracking Status: None
"Hastings, Peter S" <pshastings@duke-energy.com>
Tracking Status: None
"Kim Slays" <Kslays@duke-energy.com>
Tracking Status: None
"Ray, Phillip M" <pmray@tva.gov>
Tracking Status: None
"rgrumbir@gmail.com" <rgrumbir@gmail.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	241	7/29/2008 4:31:04 PM
BEL-RAI-LTR-090.pdf	143642	

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

BellefonteRAIsPEm Resource

From: Ravindra Joshi
Sent: Tuesday, July 29, 2008 3:45 PM
To: BellefonteRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 090 RELATED TO SRP SECTION 2.5.3 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION
Attachments: BEL-RAI-LTR-090.doc

Hearing Identifier: Bellefonte_COL_RAI_Public
Email Number: 69

Mail Envelope Properties (CEEA97CC21430049B821E684512F6E5E979C5D0549)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 090 RELATED TO SRP SECTION 2.5.3 FOR THE BELLEFONTE UNITS 3 and 4 COMBINED LICENSE APPLICATION
Sent Date: 7/29/2008 3:44:45 PM
Received Date: 7/29/2008 3:44:47 PM
From: Ravindra Joshi

Created By: Ravindra.Joshi@nrc.gov

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

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	3	7/29/2008 3:44:47 PM
BEL-RAI-LTR-090.doc	54266	

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

July 29, 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. 090 RELATED TO SRP SECTION 2.5.3 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 301-415-6191 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

Enclosure:
Request for Additional Information

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. 743

Enclosure:
Request for Additional Information

Distribution:

Public	BHughes	CAraguas
RidsNroDnrlNwe1	SCoffin	MComar
RidsNroLAKGoldstein	TSimms	AHodgdon
RidsOgcMailCenter	BAnderson	CMunson
RidsAcrsAcnw_MailCenter	PMoulding	YLi
RidsRgn2MailCenter	JSebrosky	RKaras

NRO-002

OFFICE	RGS2	NWE1/PM	OGC	NWE1/L-PM
NAME	CMunson *	RJoshi*	AHodgdon*	JSebrosky*
DATE	7/16/08	7/22/08	7/22/08	7/17/08

*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: 2.5.3-Surface Faulting
Application Section: 2.5.3

QUESTIONS from Geosciences & Geotechnical Engineering Branch 2 (RGS2)

02.05.03-1
The BLN site is located near Eastern Tennessee Seismic Zone (ETSZ), which is one of the most active seismic areas to the east of the Rocky Mountains. FSAR 2.5.1.1.4.2.4.2 notes that only limited paleoseismic searches have been done by others in the ETSZ and the FSAR does not mention any application of modern paleoseismic methods to perform systematic paleoliquefaction searches of the site area in order to determine the severity and frequency of past seismic events. Please justify this apparent omission or, if the field work was done, summarize and list the methods used and describe the findings and conclusions that resulted.

02.05.03-2
FSAR Section 2.5.3.2 indicates that “the location of these lineaments likely is related to large-scale structural deformation that results in joint formation in the limestone bedrock.” Because the joints resulted from large-scale structural deformation, the joints can be penetrative and not related to the depth of rock exposures. The FSAR also states that these joints caused the bedrock to become weaker compared to the surrounding rocks and they also became areas of preferential ground water flow. Describe the potential impact to the reactor foundation from the weakened bedrock developed from those joints that are not exposed to the surface.

02.05.03-3
FSAR Section 2.5.3.2.2.2 states that lineament #12 represents a zone of enhanced weathering and erosion associated with a high angle joint along which some minor shearing may have taken place and also concludes that the joint does not continue into the power block construction. Please provide evidence that lineament # 12, which is associated with a high angle joint, does not continue into the power block construction zone for Unit 3. Also, please provide the basis for stating that minor shearing might have taken place along the high angle joint.

02.05.03-4
Please explain the following statement in FSAR Section 2.5.3.6, “core samples from the Tellico Project . . . showed the Knoxville fault as an unbroken sample at several locations.”

02.05.03-5
FSAR section 2.5.3.7 states that “no significant zones of Quaternary deformation that would require additional investigation are identified within 40 km of the site.” In as much as this statement might imply that there are "insignificant" zones of Quaternary deformation within 40 km of the site, please describe these zones of Quaternary deformation, if any.

02.05.03-6
FSAR Section 2.5.3.2.1.3 states that faults within the basement appear to have controlled the location of the Sequatchie Valley and Wills Valley thrust faults. Please explain how the subdetachment faults controlled the Sequatchie Valley and Wills Valley faults and why modern seismicity has not shown the concentration along the subbasement faults in the site vicinity.