PMBelCOL PEmails

From: Joshi, Ravindra
Sent: Tuesday, August 11, 2009 2:46 PM
To: BelCol Resource
Subject: FW: Courtesy Email Copy - Response to RAI Letter 163
Attachments: RAI Response to Draft SER Open Item - Ch 11 - Final 20090810.pdf

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From: Spink, Thomas E [mailto:tespink@tva.gov]
Sent: Tuesday, August 11, 2009 8:53 AM
To: Joshi, Ravindra
Cc: Sterdis, Andrea Lynn; Ryan, William T III; Eddie.Grant@excelservices.com
Subject: Courtesy Email Copy - Response to RAI Letter 163

Ravi,

I have enclosed a PDF copy of our Response to RAI Letter 163 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 August 12, 2009.

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

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Subject: FW: Courtesy Email Copy - Response to RAI Letter 163
Sent Date: 8/11/2009 2:46:10 PM
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From: Joshi, Ravindra

Created By: Ravindra.Joshi@nrc.gov

Recipients:
"BelCol Resource" <BelCol.Resource@nrc.gov>
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MESSAGE	806	8/11/2009 2:46:14 PM
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Recipients Received:

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

August 10, 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 – RADIOACTIVE WASTE MANAGEMENT

Reference:
1) Letter from Stephanie Coffin (NRC) to Andrea L Sterdis (TVA), Bellefonte Units 3 and 4 Safety Evaluation Report with Open Items for Chapter 11, "Radioactive Waste Management", dated June 23, 2009.
2) Letter from Ravindra Joshi (NRC) to Andrea L Sterdis (TVA), Request for Additional Information Letter No. 163 Related to SRP Section11.04 for the Bellefonte Units 3 and 4 Combined License Application, dated June 30, 2009.

This letter provides the Tennessee Valley Authority's (TVA) response to the Nuclear Regulatory Commission's (NRC) request for additional information (RAI) item included in the reference letters.

A response to the NRC requests in the referenced letters are addressed in the enclosure which also identifies any associated changes that will be made in a future revision of the BLN application.

If you should have any questions, please contact Thomas 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 10th day of Aug, 2009.

Andrea L. Sterdis
Manager, New Nuclear Licensing and Industry Affairs
Nuclear Generation Development & Construction

Enclosure
cc: See Page 2

cc: (w/Enclosure)
J. P. Berger, EDF
E. Cummins, Westinghouse
S. P. Frantz, Morgan Lewis
M.W. Gettler, FP&L
R. C. Grumbir, NuStart
P. S. Hastings, NuStart
P. Hinnenkamp, Entergy
R. G. Joshi, NRC/HQ
M. C. Kray, NuStart
D. Lindgren, Westinghouse
G. D. Miller, PG&N
M. C. Nolan, Duke Energy
N. T. Simms, Duke Energy
G. A. Zinke, NuStart

cc: (w/o Enclosure)
B.C. Anderson, NRC/HQ
M. M. Comar,NRC/HQ
B. Hughes,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
K. N. Slays, NuStart
J. M. Sebrosky, NRC/HQ

Enclosure
TVA letter dated August 10, 2009
RAI Response

Response to NRC Request for Additional Information, Chapter 11 SER with Open Item, dated June 23, 2009
(3 pages, including this list)

Subject: Radioactive Waste Management

RAI Number	Date of TVA Response
11.04-01	This letter – see following page

Associated Additional Attachments / Enclosures	Pages Included
None	

NRC Letter Dated: June 23, 2009

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 11.04-01

In STD COL 11.4-1, the applicant states that "no additional onsite radwaste storage is required beyond that described in the DCD." The applicant should explain why this statement is included or should remove it.

In section 11.4 of NUREG-1793, the staff stated that if a need for onsite storage of low-level waste has been identified beyond that provided in AP1000 Standard Design because of unavailability of offsite storage, the applicant should submit the details of any proposed onsite storage facility to the NRC. The applicant needs to provide any arrangements for offsite storage for low-level waste or to submit plans for onsite storage. This is identified as Open Item 11.4-1.

BLN RAI ID: 3517 & 3528

BLN RESPONSE:

The referenced statement is provided to address the portion of the COL information item in DCD Subsection 11.4.6 that states "In the event additional onsite storage facilities are a part of Combined License plans, this program will include a discussion of conformance to Generic Letter GL-81-038," and the statement in Regulatory Guide 1.206 (page C.III.1-137), "In the event that additional onsite storage facilities are a part of COL plans, include a discussion of conformance to GL-81-038. Supplemental guidance is provided in SECY-94-198." The statement is intended to confirm that additional onsite storage facilities are *not* a part of the COLA plans and is consistent with the discussion in DCD Subsection 11.4.2.1, which provides that "the AP1000 has sufficient radwaste storage capacity to accommodate the maximum volume generated" and that the "spent resin storage tanks and one high integrity container provide more than a year of spent resin storage at the expected rate of generation." Accordingly, the statement establishes that no discussion of additional on-site storage facilities is necessary.

While the applicant does not currently have agreements for acceptance of Class B and C low-level waste at an offsite disposal facility, the Congress enacted the Low-Level Radioactive Waste Policy Amendments Act (LLRWPAA) of 1985 to ensure that disposal capacity would be available for all types of LLRW generated by Atomic Energy Act (AEA) licensees. Although no facility licensed for the disposal of all classes of LLRW is currently available to Applicant, off-site long term storage options are in the process of being developed, as described below.

As indicated in NUREG-0800, Appendix 11.4-A, waste should not be placed in contingency storage if it can be disposed at a licensed disposal site. Currently the Clive, Utah facility accepts Class A LLRW. Licensees may enter into agreements with licensed waste processors to take possession and/or title to material, process and transfer it to the Waste Control Specialists (WCS) Texas Site, or similar sites that might become available in the future where it would be stored until a disposal site is available. This option was demonstrated in June 2009 with utility waste storage at the WCS Texas Site.

The first unit is not scheduled to load fuel and begin operation for several years and will not be generating Class B and C waste until after initial operation. By that time, it is expected that a disposal facility will be available that would accept the Class B and C waste generated by this plant. Shipping waste at the earliest practicable time minimizes the need for waste reprocessing caused by potential changes in a disposal facility's requirements, reduces occupational and non-occupational exposures from handling and maximizes the amount of onsite storage space available for use. The commercial option to store Class B and C waste at the WCS Texas Site is expected to be available if needed.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 2, FSAR Chapter 11, Subsection 11.4.2.4 will be revised to add a new subsection with the LMA of STD COL 11.4-2 to read:

Add the following after DCD Subsection 11.4.2.4.2:

11.4.2.4.3 Alternatives for B and C Wastes

It is expected that Class B and C wastes will constitute approximately 5 percent by volume of the low level radioactive waste (LLRW) that will be generated by the plant with the balance being Class A waste. The volume of wet Class B and C waste is approximately 100 percent of the total Class B and C Waste. As of July 1, 2008, the LLRW disposal facility in Barnwell, South Carolina is no longer accepting Class B and C waste from sources in states that are outside of the Atlantic Compact. However, the disposal facility in Clive, Utah is still accepting Class A waste from out of state.

Should there be no disposal facilities that will accept the Class B and C wastes after the plant begins operation, there are several options available for storage of such waste:

- As provided in referenced DCD Subsection 11.4.2., the Auxiliary Building is designed to have more than a year of spent resin storage capacity at the expected rate and the spent resin tanks may be mixed to limit the radioactivity concentrations thereby limiting the volume of Class B and C wet waste requiring storage.
- Vendor services are available to process Class A, B, and C waste and transfer for storage that material until a disposal site is available. Currently, Waste Control Specialists (WCS) of Texas is available to store Class A, B, and C material pending the availability of a licensed disposal site.
- If additional storage capacity were eventually needed, the plant could construct or expand storage facilities onsite or gain access to a storage facility at another licensed nuclear plant.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None