

BellBendCOLPEm Resource

From: Canova, Michael
Sent: Tuesday, April 26, 2011 4:20 PM
To: 'Sgarro, Rocco R'; 'Freels, James'; 'melanie.Frailer@unistarnuclear.com'
Cc: BellBendCOL Resource; Colaccino, Joseph; Vrahoretis, Susan; Roach, Edward; Dehmel, Jean-Claude; Clark, Phyllis
Subject: Bell Bend COLA - Draft Request for Information No. 100 (RAI No. 100)- RHPB 5414, 5418, 5419
Attachments: Draft RAI Letter 100 - 5414, 5418, 5519 CHPB.doc

Attached is DRAFT RAI No.100 for the Bell Bend COL Application. You have ten working days to review this request and to decide whether you need a conference call to discuss it. Please notify me of your decision in this regard.

After the call, or after ten days, the RAIS will be finalized and sent to you. The schedule for [response](#) submittal will be established prior to formalizing this RAI .

If you have any questions, please contact me.

Michael A. Canova

Project Manager - Bell Bend COL Application
Docket 52-039
EPR Project Branch
Division of New Reactor Licensing
Office of New Reactors
301-415-0737

Hearing Identifier: BellBend_COL_Public
Email Number: 514

Mail Envelope Properties (77BCCD26C6050B42A72FE3939CF492ED776B69D825)

Subject: Bell Bend COLA - Draft Request for Information No. 100 (RAI No. 100)- RHPB
5414, 5418, 5419
Sent Date: 4/26/2011 4:20:14 PM
Received Date: 4/26/2011 4:20:19 PM
From: Canova, Michael

Created By: Michael.Canova@nrc.gov

Recipients:

"BellBendCOL Resource" <BellBendCOL.Resource@nrc.gov>
Tracking Status: None
"Colaccino, Joseph" <Joseph.Colaccino@nrc.gov>
Tracking Status: None
"Vrahoretis, Susan" <Susan.Vrahoretis@nrc.gov>
Tracking Status: None
"Roach, Edward" <Edward.Roach@nrc.gov>
Tracking Status: None
"Dehmel, Jean-Claude" <Jean-Claude.Dehmel@nrc.gov>
Tracking Status: None
"Clark, Phyllis" <Phyllis.Clark@nrc.gov>
Tracking Status: None
"Sgarro, Rocco R" <rsgarro@pplweb.com>
Tracking Status: None
"Freels, James" <James.Freels@unistarnuclear.com>
Tracking Status: None
"melanie.Frailer@unistarnuclear.com" <melanie.Frailer@unistarnuclear.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	655	4/26/2011 4:20:19 PM
Draft RAI Letter 100 - 5414, 5418, 5519 CHPB.doc		39418

Options

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

Request for Additional Information No. 5418
Application Revision 2

DRAFT

4/26/2011

Bell Bend
PPL Bell Bend LLC.
Docket No. 52-039

QUESTIONS for Health Physics Branch (CHPB)

SRP Section: 11.04 - Solid Waste Management System
Application Section: 11.4 and 9.5.1 and 9B

11.04-1

BBNPP FSAR Tier 2, Rev. 2, Section 11.4 endorses the corresponding sections of the U.S. EPR FSAR Section 11.4 as it relates to the management of radioactive wastes in plant buildings. A parallel review of U.S. EPR FSAR Sections 9.5.1 and 9A.1 on fire protection analysis (FPA) involving radioactive materials indicates that fires could occur over the life of a nuclear power plant and should be treated as anticipated operational occurrences. U.S. EPR FSAR Sections 9.5.1 and 9A.1 and Table 9A-2 address the need to conduct a fire protection analysis given the presence of radioactive materials in the plant. The results of such analyses would be used to identify measures such that fires would not result in unacceptable radiological releases and radiological consequences to the public under the criteria of 10 CFR Part 20, as noted in RG 1.189. A review U.S. EPR FSAR Rev. 2, Table 9A-2 (footnote 15) indicates that such analyses would identify the potential presence of radioactive materials as a source of combustible materials, assess the potential for fires and possible radiological effects from a fire, and evaluate the need for additional in-depth fire protection features to mitigate the consequences of a fire.

However, BBNPP FSAR Tier 2, Sections 9B.1.2, 9B2.3, Table 9.5-1, and 11.4 do not present a FPA for areas of the plant where radioactive materials, such as dry active wastes, spent ion-exchange resins, and spent charcoals will be processed and stored while awaiting shipment. Accordingly, the applicant is requested to:

- a. present this information for all areas of the plant where combustible radioactive materials will be processed and stored,
- b. describe radiological releases in the event of a fire involving radioactive materials, including the initial source terms, types of releases, release paths from within buildings to the outside via building ventilation systems, credit, if any, for filtration and retention of radioactivity within buildings in mitigating releases, and radionuclide distributions and concentration at assumed dose receptors located in unrestricted areas, and
- c. assess the radiological consequences to the public under the criteria of 10 CFR Part 20.1301 and 20.1302 and Part 20, Appendix B ECLs for airborne releases.

SRP Section: 11.05 - Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems

Application Section: 11.5

11.05-1

BBNPP FSAR Section 11.5.2 endorses the use of NEI ODCM Template 07-09A (Revision 0, March 2009) to meet COL Information Item 11.5-1 until a plant and site-specific ODCM is prepared, before fuel load, under the requirements of a license condition described in BBNPP FSAR Section 13.4, Table 13.4-1. The staff has reviewed NEI ODCM Template 07-09A and found it acceptable (ML091050234). The development of the site specific ODCM and implementing procedures should meet the provisions of GL 89-01 (Supplement No. 1), Radiological Assessment Branch Technical Position (Revision 1, November 1979) included as Appendix A in NUREG-1301, as ODCM guidance for PWRs, and the guidance of NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants," October 1978. The staff finds this approach acceptable, given the inclusion of COL Information Item 11.5-1 in U.S. EPR FSAR Tier 2, Revision 1, Sections 1.8.1 and 11.5.2, and its implementation in BBNPP FSAR Tier 2, Revision 2, and Section 13.4.

However, BBNPP FSAR Section 11.5.2 does not address unique site-specific conditions that are not covered in the NEI ODCM Template 07-09A. The BBNPP FSAR does not address how sampling provisions for in-process and effluent streams described in U.S. EPR FSAR Section 11.5, Table 11.5-1 and Figure 11.5-1 will be evaluated and implemented to reflect site-specific conditions in demonstrating compliance with Part 20.1301 and 20.1302, Part 20 Appendix B ECLs, and Part 50 Appendix I design objectives. Similarly, the applicant has not addressed how operational ranges, sensitivity levels, and lower limits of detection for radiation monitoring equipment will be established for all radiation monitoring instrumentation described in U.S. EPR FSAR Section 11.5, Table 11.5-1 and Figure 11.5-1. The applicant is requested to present this information for all radiation monitoring equipment that will be installed at the BBNPP plant, and identify associated departures, if any, for specific in-process and effluent streams.

11.05-2

BBNPP FSAR Tier 2, Rev. 2, Section 11.5.2 endorses the use of NEI ODCM Template 07-09A (Revision 0, March 2009) to meet COL Information Item 11.5-1 until a plant and site-specific ODCM is prepared, before fuel load, under the requirements of a license condition described in BBNPP FSAR Section 13.4, Table 13.4-1. The staff has reviewed NEI Offsite DoseCalculation Manual (ODCM) Template 07-09A and found it acceptable (ML091050234). The development of the site specific ODCM and implementing procedures should meet the provisions of GL 89-01 (Supplement No. 1), Radiological Assessment Branch Technical Position (Revision 1, November 1979) included as Appendix A in NUREG-1301, as ODCM guidance for PWRs, and the guidance of NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants," October 1978. The staff finds this

approach acceptable, given the inclusion of COL Information Item 11.5-1 in U.S. EPR FSAR Tier 2, Revision 1, Sections 1.8.1 and 11.5.2, and its implementation in BBNPP FSAR Tier 2, Revision 2, and Section 13.4.

However, BBNPP FSAR Tier 2, Section 11.5.2 does not address unique site-specific conditions that are not covered in the NEI ODCM Template 07-09A. The BBNPP FSAR does not consider how the ODCM will control liquid and gaseous effluent releases and doses to members of the public given that two licensees (SSES 1&2 and Bell Bend) will be contributing to and competing for a single dose allocation to members of the public under Parts 20.1301 and 20.1302; Part 20.1301(e) in complying with 40 CFR Part 190; and identify whether this may also apply for assessing the unity-rule in meeting liquid and gaseous effluent concentration limits of Part 20 (App. B, Table 2, Col. 1 and 2). Accordingly, the applicant is requested to:

1. Describe in BBNPP FSAR Tier 2, Section 11.5.2 the administrative program and procedures that will be used to coordinate all liquid and gaseous effluent releases and dose allocations to members of the public between SSES 1&2 and Bell Bend in complying with NRC regulations.
2. If PPL Bell Bend LLC has already made specific arrangements with SSES on this matter, the applicant is requested to describe in BBNPP FSAR Tier 2, Section 11.5.2 the type and duration of such arrangements, the scope of the arrangements made in coordinating the responsibility to control liquid and gaseous effluent releases and doses to members of the public and how the arrangements will be implemented in BBNPP administrative programs and procedures in FSAR Tier 2, Sections 13.1 and 13.5.
3. Confirm that these provisions will be included in the development of the BBNPP site-specific ODCM, given the operational program implementation and milestones described in FSAR Tier 2, Section 13.4.
4. Include this additional responsibility in the job functional descriptions of the Radiation Protection Supervisor and/or Chemistry Supervisor in BBNPP FSAR Tier 2, Section 13.1.2.2.