BellBendCOLPEm Resource

From: Canova, Michael
Sent: Friday, April 27, 2012 2:22 PM
To: 'Sgarro, Rocco R'; 'melanie.Frailer@unistarnuclear.com'; Woodring, Kathryn L; Kirkwood, Jon K
Cc: BellBendCOL Resource; Segala, John; Vrahoretis, Susan; Schaaf, Robert; Dehmel, Jean-Claude; Clark, Phyllis; Goldin, Laura
Subject: Bell Bend COLA - FINAL Request for Information No. 113 (RAI No. 113)- RSAC 5868
Attachments: Final RAI Letter 113 - RSAC 5868.doc

Attached is RAI No. 113 for the Bell Bend COL Application. Per your discussion on 4/11/2012, we understand that you have no further questions on this RAI. You are requested to respond by June 19, 2012. If additional time is required to respond, please inform me of your proposed schedule your earliest opportunity.

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: 551

Mail Envelope Properties (77BCCD26C6050B42A72FE3939CF492EDA532F81357)

Subject: Bell Bend COLA - FINAL Request for Information No. 113 (RAI No. 113)- RSAC 5868
Sent Date: 4/27/2012 2:22:29 PM
Received Date: 4/27/2012 2:22:32 PM
From: Canova, Michael

Created By: Michael.Canova@nrc.gov

Recipients:
"BellBendCOL Resource" <BellBendCOL.Resource@nrc.gov>
Tracking Status: None
"Segala, John" <John.Segala@nrc.gov>
Tracking Status: None
"Vrahoretis, Susan" <Susan.Vrahoretis@nrc.gov>
Tracking Status: None
"Schaaf, Robert" <Robert.Schaaf@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
"Goldin, Laura" <Laura.Goldin@nrc.gov>
Tracking Status: None
"'Sgarro, Rocco R'" <rrsgarro@pplweb.com>
Tracking Status: None
"'melanie.Frailer@unistarnuclear.com'" <melanie.Frailer@unistarnuclear.com>
Tracking Status: None
"Woodring, Kathryn L" <KFitzpatrick@pplweb.com>
Tracking Status: None
"Kirkwood, Jon K" <jon.kirkwood@unistarnuclear.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	720	4/27/2012 2:22:32 PM
Final RAI Letter 113 - RSAC 5868.doc	36858	

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

RAI Letter Number 113

Application Revision 2

4/27/2012

Bell Bend
PPL Bell Bend LLC.
Docket No. 52-039
SRP Section: 11.04 - Solid Waste Management System
Application Section: 11.04

Request for Additional Information No. 5868

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

11.04-3

Supplemental questions to follow up on BBNPP's response to NRC RAI Letter No. 100, Question 11.04-1

Regulatory Guide 1.189, “Fire Protection for Nuclear Power Plants,” (October 2009), explains the primary objectives of fire protection programs (FPPs) at nuclear power plants, and describes the regulatory framework the NRC has established, including but not limited to GDC 3, “Fire Protection,” as set forth in Appendix A, “General Design Criteria for Nuclear Power Plants,” to 10 CFR, Part 50; 10 CFR 50.48, “Fire Protection;” and the radiological exposure criteria in 10 CFR Part 20. Reg. Guide 1.189, page 19, also explains that in order to meet NRC’s FPP regulations, an FPP, including the fire hazards analysis, should demonstrate that the plant will maintain the ability to minimize the potential for radioactive releases to the environment in the event of a fire. Fires are expected to occur over the life of a nuclear power plant and, thus, should be treated as anticipated operational occurrences, as defined in Appendix A to 10 CFR Part 50. Requirements for protection against radiation during normal operations appear in 10 CFR Part 20, “Standards for Protection against Radiation.” Anticipated operational occurrences should not result in unacceptable radiological consequences, and the exposure criteria of 10 CFR Part 20 apply. Prevention of a radiological release that could result in a radiological hazard to the public, environment, or plant personnel becomes the primary FPP objective for reactor shutdown and decommissioning.

In RAI No. 100, Question 11.04-1, the staff asked the applicant to address footnote 15 in U.S. EPR FSAR Rev. 2 (now Rev. 3), Table 9A-2, which specifies that for some areas of the plant where radioactive materials are stored and for which there exists the potential of fires involving radioactivity, the COL applicant will evaluate possible radiological effects from a fire and the need for additional in-depth fire protection features to mitigate the consequences of a fire as part of the final fire hazards analysis (FHA). Because BBNPP FSAR Tier 2, Sections 9B.1.2, 9B.2.3, Tables 9.5-1 and 9B-2, and Section 11.4 do not present a site-specific fire protection analysis (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, the staff requested that the applicant provide this information.

In a response dated June 17, 2011, the applicant stated that no revisions would be made to the BBNPP COLA FSAR, and that:

> "[t]he BBNPP COLA does not identify any site-specific locations where radioactive materials will be processed or stored. Therefore, the site-specific Fire Protection Analysis in the BBNPP FSAR does not need to address the items identified in this RAI question."

In this response, the applicant also stated:

> "[t]he locations for processing and storage of radioactive materials are identified in the U.S. EPR FSAR. The fire areas that may contain radioactive material can be identified by reviewing U.S. EPR FSAR Revision 2, Table 9A-2, Radiological Effects (Note 15) designations. These identified fire areas are included in the scope of the U.S. EPR design certification and its respective Fire Hazards Analysis (FHA) and are outside the scope of the BBNPP COLA. Should BBNPP consider alternative locations for storing radioactive material at a later date, any changes considered will be processed through the 10 CFR 50.59, "Changes, tests and experiments" review and evaluation process and will consider all relevant aspects of regulations. Additionally, COL Item 9.5-17 identifies that the COL Applicant that references the U.S. EPR design certification will evaluate differences between the as-designed and as-built plant configuration to confirm that the Fire Protection Analysis remains bounding. This COL Item is addressed in BBNPP FSAR 9.5.1.3 and commits BBNPP to confirm that the Fire Protection Analysis remains bounding and to identify any deviations from the U.S. EPR FSAR, prior to fuel load."

U.S. EPR FSAR Rev. 3, Section 9A.3.8 and FSAR Table 9A-2 do not provide the results of fire protection analyses or engineering evaluations for plant areas identified with potential radiological effects. Therefore, the staff requests that the applicant provide the following information:

(1) How does the applicant plan to address U.S. EPR FSAR Rev. 3, Table 9A-2 (footnote 15), which states that the COL applicant that references the U.S. EPR design will evaluate possible radiological effects from a fire and the need for additional in-depth fire protection features to mitigate the consequences of a fire as part of the final fire hazards analysis (FHA)?

(2) When the applicant states that "t]he locations for processing and storage of radioactive materials are identified in the U.S. EPR FSAR[,]" and "[t]he fire areas that may contain radioactive material can be identified by reviewing U.S. EPR FSAR Revision 2 (now Rev. 3), Table 9A-2, Radiological Effects (Note 15) designations[,]" to which locations and fire areas is the applicant referring?

(3) Because the U.S. EPR FSAR Rev. 3, Section 9A.3.8 and FSAR Table 9A-2 do not provide the results of fire protection analyses or engineering evaluations for all plant areas identified with potential radiological effects, how does the applicant plan to compare "as designed" and "as built" plant configurations" or "use the 10

CFR 50.59 change process to evaluate the impact of placing potentially combustible radioactive materials in other areas of the plant”?

In response to the staff’s follow-up questions above, the COL applicant should provide sufficient information to enable the staff to conduct an independent evaluation and confirm the applicant’s conclusions of regulatory compliance with the radiological exposure criteria in 10 CFR 20.1301 and 1302, as noted in Regulatory Guides 1.189 (Licensing and Design Basis) and 1.206 (Part 1, C.I.9.5.1) and NUREG-0800, SRP Sections 9.5.1, 11.3, and 11.4.