

BellBendCOLPEm Resource

From: Canova, Michael
Sent: Tuesday, September 29, 2009 9:29 AM
To: Canova, Michael; 'Sgarro, Rocco R'; 'BBNPP@pplweb.com'; 'jennifer.mcqueeney@unistarnuclear.com'; Freels, James
Cc: BellBendCOL Resource; Vrahoretis, Susan; Weisman, Robert; Miernicki, Michael; Crane, Samantha; Peralta, Juan
Subject: RE: Bell Bend COLA - Request for Information No. 52 (RAI No. 52)- CQVP - 3583
Attachments: Letter 52 - RAI 3583 CQVP.pdf

I've inadvertently sent a version that is still marked DRAFT. The final version is attached to this message.

Mike Canova

From: Canova, Michael
Sent: Tuesday, September 29, 2009 9:25 AM
To: 'Sgarro, Rocco R'; 'BBNPP@pplweb.com'; 'jennifer.mcqueeney@unistarnuclear.com'; Freels, James
Cc: BellBendCOL Resource; Vrahoretis, Susan; Weisman, Robert; Miernicki, Michael; Crane, Samantha; Peralta, Juan
Subject: Bell Bend COLA - Request for Information No. 52 (RAI No. 52)- CQVP - 3583

RAI No. 52 is attached regarding the Bell Bend COL Application. Based on our discussions on 9/24/2009 Question 14.02-16 has been amended for clarification. We are releasing the final version of this document for your action.

You are requested to respond to this request 30 days to respond. Durations are factored into your review schedule. If additional time is required to respond, please inform me of your proposed schedule to respond at 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

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Received Date: 9/29/2009 10:34:20 AM
From: Canova, Michael

Created By: Michael.Canova@nrc.gov

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Options

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Request for Additional Information No. 52

9/29/2009

Bell Bend
PPL Bell Bend LLC.

Docket No. 52-039

SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2.14

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-16

In RAI 14.02-06, the NRC staff requested that the applicant revise the applicable test abstracts under Section 14.2.14 to include verification of redundancy and electrical independence of affected SSCs or explain why such verification is not necessary.

In response to the staff's RAI, the applicant stated that the US EPR FSAR, Section 14.2.12.17, the Integrated Engineered Safety Features/Loss of Power Test, (Test # 153), which is incorporated by reference into the combined license application, includes acceptance criteria that states, "Electrical redundancy, independence, and load group assignments are as designed." This test will ensure the electrical redundancy, independence, and load group assignments of the SSCs covered within the scope of the US EPR and BBNPP site-specific SSCs, including the ESWEMS (BBNPP FSAR 14.2.14.1), and ESWEMS Pumphouse HVAC System (BBNPP FSAR 14.2.14.6).

The Raw Water Supply System (BBNPP FSAR Section 14.2.14.8), Essential Service Water Blowdown System (BBNPP FSAR Section 14.2.14.2), Essential Service Water Chemical Treatment System (BBNPP FSAR Section 14.2.14.3), Fire Water Supply (BBNPP FSAR Section 14.2.14.4), the Circulating Water Supply System (BBNPP FSAR Section 14.2.14.5), Cooling Tower Acceptance (BBNPP FSAR Section 14.2.14.7), Plant Laboratory Equipment (BBNPP FSAR Section 14.2.14.9), and Portable Personnel Monitors and Radiation Survey Instruments (BBNPP FSAR Section 14.2.14.10) are not safety related and therefore are not included in the redundancy and electrical independence verifications. The applicant stated that the FSAR would not be revised.

However, AREVA's response to the staff's request in RAI 14.02-33 and Revision 1 of the U.S. EPR FSAR consisted of a different approach. AREVA instead revised the test abstracts in the US EPR FSAR, Chapter 14.2, to include electrical independence and redundancy. Rather than relying solely on Test #153 to verify the electrical independence and redundancy of **all SSCs powered by safety-related power supplies, AREVA revised the test abstracts containing SSCs powered by safety-related power supplies** (test abstracts #001, #003, #004, #012, #014 through #022, #027, #031, #036, #037, #046, #048, #049, #052, #059, #061, #062, #063, #067, #071, #076 through #079, #081 through #086, #088, #100, #104, #105, #106, #110, #112, #115, #116, #117, #121, #126, #130, #140, #141, #142, #145, #146, #147, #138, #148 through #153, and #174). The revisions included a statement in the test objectives, ("Verify electrical independence and redundancy of safety-related power supplies,") a statement in the test methods, ("Verify electrical independence and redundancy of power supplies for safety-related functions,") and a statement in the acceptance criteria, ("Safety-related components meet electrical independence and redundancy

requirements.") to indicate that the test must include verification of electrical independence and redundancy.

Consistent with the US EPR FSAR approach, the staff requests that the applicant revise the test abstracts in **BBNPP FSAR Section 14.2.14.1, 14.2.14.6, and any other section that includes the testing of SSCs that are powered by safety related power supplies**, to include provisions in the objectives, test methods, and acceptance criteria for the verification of redundancy and electrical independence of affected SSC's or to comply with the requirements of 10 CFR Part 52 concerning departures from incorporated standardized designs.

14.02-17

In RAI 14.02-7 the staff requested that the applicant revise the acceptance criteria section of the test abstracts to include sufficient detail (explicit values, prescribed limits, or measurable parameters) to establish the functional adequacy of the SSCs.

In its response, dated July 2, 2009, the applicant proposed to revise the acceptance criteria section of the test abstracts to include sufficient detail to establish the functional adequacy of the SSCs. The applicant provided FSAR mark-ups for the acceptance criteria sections of sections 14.2.14.1-6; however, the applicant removed the references to the chapters describing the design of the SSCs.

Therefore, the staff requests that the applicant reinstate the references to the chapters describing the design of the SSCs in the acceptance criteria sections of the test abstracts in subsection 14.2.14.

14.02-18

In RAI No. 14, Question 14.02-10, the staff requested that the applicant amend Section 14.2.14 of the Bell Bend Nuclear Power Plant FSAR to include the testing of personnel monitors and radiation survey equipment. In its response to the staff's RAI, dated July 2, 2009, the applicant proposed to add a new FSAR Section 14.2.14.10, "Portable Personnel Monitors and Radiation Survey Instruments," to include a test abstract for portable personnel monitors and radiation survey equipment.

The staff has reviewed proposed Section 14.2.14.10 of the BBNPP FSAR, provided in the July 2, 2009 RAI response, and requests that the applicant revise the proposed section to address the following issues:

1) The use of the word "portable" in front of "personnel monitors" is confusing since this test includes Radiologically Controlled Area (RCA) and security building exit contamination monitors, which are usually installed in the facility in some way. Please delete this word to minimize potential confusion.

2) Additionally, RCA egress personnel contamination monitors should have a backup power capability to ensure functionality of the monitors during loss of power events.

Provide an additional step to verify back up power function, or justify why such a step is not required.

14.02-19

In RAI 14.02-5, the staff requested that the applicant include site-specific preoperational tests for laboratory equipment in BBNPP FSAR Section 14.2.14. In its response to this RAI, the applicant added a test for laboratory equipment in Section 14.2.14.9, "Plant Laboratory Equipment," of the BBNPP FSAR. For completeness and accuracy, the staff requests that the applicant revise Section 14.2.14.10 Item 4.c to read, "Completed vendor specified laboratory equipment startup **and calibration** procedures."