

R. R. Sgarro
Manager-Nuclear Regulatory Affairs

PPL Bell Bend, LLC
38 Bombooy Lane, Suite 2
Berwick, PA 18603
Tel. 570.802.8102 FAX 570.802.8119
rrsgarro@pplweb.com



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ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**BELL BEND NUCLEAR POWER PLANT
RESPONSE TO RAI SET 76
BNP-2009-370 Docket No. 52-039**

References: 1) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information No. 76 (RAI No. 76) – CIB1-2391, email dated November 20, 2009

The purpose of this letter is to respond to the request for additional information (RAI) identified in the referenced NRC correspondence to PPL Bell Bend, LLC. This RAI addresses Leak-Before-Break Evaluation Procedures, as discussed in Section 3.6.3 of the Final Safety Analysis Report (FSAR), as submitted in Part 2 of the Bell Bend Nuclear Power Plant Combined License Application (COLA).

Enclosure 1 provides our response to RAI No. 76, Questions 03.06.03-1 and 03.06.03-2.

The only new regulatory commitment contained in this letter is to update the FSAR in a future revision.

If you have any questions or need additional information, please contact the undersigned at 570.802.8102.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 11, 2009

Respectfully,


Rocco R. Sgarro

RRS/kw

Enclosure: As stated

DO79
NRC

cc: (w/o Enclosures)

Mr. Samuel J. Collins
Regional Administrator
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Mr. Michael Canova
Project Manager
U.S. Nuclear Regulatory Commission
11545 Rockville Pike, Mail Stop T6-E55M
Rockville, MD 20852

Enclosure 1

Response to NRC Request for Additional Information Set No. 76
Bell Bend Nuclear Power Plant

Question 03.06.03-1:

RAI 03.06.03-01 - Chapter 3.6.3 of the applicant's FSAR states, "{PPL Bell Bend, LLC} shall confirm that the design Leak-Before-Break (LBB) analysis remains bounding for each piping system." Please provide as-designed LBB analyses for each LBB piping system prior to COL issuance or provide justification for concluding that the as-designed LBB analyses remain bounding for each piping system.

Response:

The as-designed LBB analysis is the responsibility of the design certification applicant and is reviewed by the NRC as part of the review of the U.S. EPR FSAR Tier 2, Section 3.6.3. As noted in this U.S. EPR FSAR section, the COL applicant is responsible for confirming that the design LBB analysis remains bounding for each piping system by providing a summary of the results of the actual as-built, plant-specific LBB analysis, including material properties of piping and welds, stress analyses, leakage detection capability, and degradation mechanisms. PPL Bell Bend, LLC does not expect that the design LBB analysis would not remain bounding, but acknowledges the need to perform the appropriate reconciliation with the as-built plant. As noted in Section 3.6.3 of the BBNPP FSAR, this confirmation and related information will be provided prior to fuel load based on the as-built plant. This is also consistent with the ITAAC that has been established for LBB in the design certification application (e.g., U.S. EPR FSAR Tier 1, Table 2.2.1-5, item 3.7).

COLA Impact:

FSAR Section 3.6.3 will be revised as shown in the paragraph below:

{PPL Bell Bend, LLC} shall confirm that the design Leak-Before-Break (LBB) analysis remains bounding for each applicable as-built piping system. A summary of the results of the actual as-built, plant-specific LBB analysis, including material properties of piping and welds, stress analyses, leakage detection capability, and degradation mechanisms will be provided prior to fuel load.

ITAAC Part 2, License Conditions will be revised as shown in the paragraph below:

COL Item 3.6-3 in Section 3.6.3

{PPL Bell Bend, LLC} shall confirm that the design Leak-Before-Break (LBB) analysis remains bounding for each applicable as-built piping system. A summary of the results of the actual as-built, plant-specific LBB analysis, including material properties of piping and welds, stress analyses, leakage detection capability, and degradation mechanisms will be provided prior to fuel load.

Question 03.06.03-2:

For dynamic loadings for the EPR LBB generic design, AREVA has proposed using a safety factor of 1.7 instead of the NRC staff's recommended safety factor of 2. In developing the EPR generic design to envelope all current sites' seismic loadings, AREVA proposes revising its generic seismic design response spectra. If this revision is approved, the calculated seismic loadings could increase, which may affect the LBB design and may further decrease the LBB dynamic loading safety factor.

RAI 03.06.03-02 - Please provide an analysis or evaluation that demonstrates that the main steam piping inside containment meets the safety factor of 2 using site specific seismic response spectra

Response:

The leak-before-break (LBB) analysis for the generic design, including the safety factor for dynamic loadings, is the responsibility of the design certification applicant and is being reviewed by the NRC as part of the review of the U.S. EPR FSAR Tier 2, Section 3.6.3. A similar request for information (RAI) was asked by NRC in U.S EPR FSAR RAI 265, Question 03.06.03-24. As part of the response¹ to U.S EPR RAI 265, AREVA NP revised U.S. EPR FSAR Tier 2, Section 3.6.3.6.3.1 to increase the safety factor from 1.7 to 2.0 on dynamic loadings for LBB for the main steam line (MSL) piping. This is due to a decrease in seismic loads based on the application of the modal combinations described in Regulatory Guide (RG) 1.92, Rev. 2. As AREVA NP uses a safety factor of 2.0 for LBB qualification of MSL for the generic design, a site-specific seismic evaluation of Bell Bend Nuclear Power Plant (BBNPP) is not required.

COLA Impact:

The COLA FSAR will not be revised as a result of this response.

¹ E-mail Correspondence Between R. Pederson (AREVA) and G. Tesfaye (NRC), "Response to U.S. EPR Design Certification Application RAI No. 265, FSAR Ch. 3," dated 10/16/09