

**R. R. Sgarro**  
Director - Regulatory Affairs

**PPL Bell Bend, LLC**  
Two North Ninth Street  
Allentown, PA 18101-1179  
Tel. 610.774.7552 Fax 610.774.2618  
[rrsgarro@pplweb.com](mailto:rrsgarro@pplweb.com)



December 19, 2013

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

**BELL BEND NUCLEAR POWER PLANT  
RESPONSE TO REQUEST FOR 10 CFR 2.390 REVIEW  
OF SAFETY EVALUATIONS WITH OPEN ITEMS FOR  
CHAPTERS 4, 5 & 10  
BNP-2013-158 Docket No. 52-039**

- References:
- 1) David H. Jaffe (NRC) to Michael J. Caverly (PPL Bell Bend, LLC), Bell Bend Nuclear Power Plant, Combined License Application – Safety Evaluation with Open Items for Chapter 4, “Reactor” dated August 21, 2013
  - 2) David H. Jaffe (NRC) to Michael J. Caverly (PPL Bell Bend, LLC) Bell Bend Nuclear Power Plant, Combined License Application – Safety Evaluation with Open Items for Chapter 5, “Reactor Coolant System and Connected Systems,” dated September 6, 2013
  - 3) David H. Jaffe (NRC) to Michael J. Caverly (PPL Bell Bend, LLC), Bell Bend Nuclear Power Plant, Combined License Application – Safety Evaluation with Open Items for Chapter 10, “Steam and Power Conversion System,” dated August 27, 2013

The purpose of this letter is to respond to the requests for a PPL Bell Bend, LLC (PPL) 10 CFR 2.390, “Public Inspections, Exemptions, Requests for Withholding” review of the Bell Bend Nuclear Power Plant (BBNPP) Safety Evaluation Reports (SERs) transmitted by References 1, 2 and 3.

PPL has reviewed the subject transmittals (References 1, 2 and 3) and has determined that the Safety Evaluations do not contain any information requiring an exemption from public disclosure in accordance with 10 CFR 2.390.

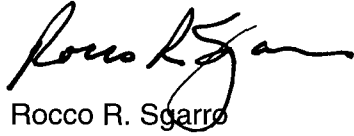
Additionally, the attached Enclosure contains PPL’s review comments on the SERs.

There are no new regulatory commitments in this correspondence.

DIDZ  
NRD

Should you have questions, please contact the undersigned at 610.774.7552.

Respectfully,

A handwritten signature in black ink, appearing to read "Rocco R. Sgarro". The signature is fluid and cursive, with a large, stylized initial "R".

Rocco R. Sgarro

RRS/kw

Enclosure: As Stated.

cc: W/ Enclosure

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

w/o Enclosure

Mr. William Dean  
Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region I  
2100 Renaissance Blvd., Suite 100  
King of Prussia, PA 19406-2713

Enclosure

PPL Comments for Bell Bend Safety Evaluation Reports  
Chapters 4, 5, and 10

<b>Item#</b>	<b>BBNPP Chapter 4 SER Text</b>	<b>Comment</b>
1	No comments by PPL	No comments by PPL

<b>Item#</b>	<b>BBNPP Chapter 5 SER Text</b>	<b>Comment</b>
1	“The staff also notes that in its response to RAI 244, Question 05.02.05-6, AREVA directed the COL applicant to provide this information in the COL FSAR. Based upon the review above, the staff has determined that the COL applicant’s response is not acceptable. As a result, the staff issued follow-up RAI 223, Question 05.02.5-3, requesting that the COL applicant address the procedures for conversion and alarm setpoints to the COL FSAR. <b>RAI 223, Question 05.02-05-3 is being tracked as an open item.</b> ”	RAI 223 Question 05.02-05-3 was responded to by Calvert Cliffs Unit 3 on 8/30/2010 by UN#10-215. PPL endorsed this response as applicable to Bell Bend by letter BNP-2013-104, dated 8/03/2013. In addition, the Bell Bend COLA was revised to incorporate this response in revision 04.
2	“Additionally, the COL applicant, in responding to RAI 166, Question 05.02.05-2, referred the staff to U.S. EPR FSAR Tier 2, Section 5.2.5, to demonstrate conformance with RG 1.45, Revision 1. The staff reviewed the referenced section of the U.S. EPR FSAR AREVA’s response to RAI 244, Question 05.02.05-7, in which AREVA directed a COL applicant referencing the U.S. EPR design certification application to provide such information in the COL FSAR, and determined that the COL applicant has not demonstrated conformance with Regulatory Position C.3 in the COL FSAR. Based upon the review above, the staff has determined that the COL applicant’s response is not acceptable. As a result, the staff issued follow-up RAI 223, Question 05.02.5-4, requesting that the COL applicant provide the requested procedures. <b>RAI 223, Question 05.02-05-4 is being tracked as an open item.</b> ”	RAI 223 Question 05.02-05-4 was responded to by Calvert Cliffs Unit 3 on 8/30/2010 by UN#10-215. PPL endorsed this response as applicable to Bell Bend by letter BNP-2013-104, dated 8/03/2013. In addition, the Bell Bend COLA was revised to incorporate this response in revision 04.
3	“The COL applicant also proposed revising COL FSAR Section 5.3.2 to indicate that the plant-specific P-T limits will be provided prior to fuel load. The staff finds that the COL applicant’s response is in accordance with the guidelines of GL 96-03, and is therefore acceptable. <b>RAI 186, Question 05.03.02-2 is being tracked as a confirmatory item.</b> ”	A follow-up RAI was issued to RAI 186 Question 05.03.02-2 (RAI 357 Q5.3.2-3) and responded to by Calvert Cliffs Unit 3 letter UN#12-070, dated 7/18/2012. PPL endorsed this response as applicable to Bell Bend by letter BNP-2013-167, dated 12/19/2013. In addition, the Bell Bend COLA was revised to incorporate this response in revision 04.

Item#	BBNPP Chapter 10 SER Text	Comment
1	<p><b><u>Section 10.2.3 Technical Evaluation</u></b></p> <p>“ITAAC Commitment 1.0b ensures that a turbine missile probability analysis will be performed for the as-built turbine design, and the probability of a turbine missile will be less than <math>10^{-4}</math>. Therefore, the probability of turbine material and overspeed-related failures resulting in turbine missiles will be less than <math>1 \times 10^{-4}</math>, which meets the guidance in RG 1.115.”</p> <p>.....</p> <p>“ITAAC Commitment 1.0a states that an analysis will be performed to ensure the as-built rotor material properties still meet the requirements of the manufacturer’s turbine missile probability analysis. ITAAC Commitment 1.0b ensures that a turbine missile probability analysis will be performed for the as-built turbine design, and the probability of a turbine missile will be less than <math>10^{-4}</math>.”</p>	<p>The ITAACs were renumbered in revision 01 of the U.S. EPR FSAR to 2.4 &amp; 2.5 from 1.0a &amp; b. Also, the ITAAC changed the probability of a turbine missile from <math>10^{-4}</math> to <math>10^{-5}</math>.</p>
2	<p><b><u>Section 10.2.3 Technical Evaluation</u></b></p> <p>“The staff notes that the inservice inspection interval of 10 years is within the bounding turbine missile analysis per Alstom Report TSDMF 07-018 D. However, the staff is still reviewing issues related to the turbine missile analysis as discussed in Section 3.5.1.3 of this report. Therefore, upon satisfactory review and resolution of any open items for the turbine missile probability analysis, the staff determines a 10-year inservice inspection interval is acceptable and is consistent with the manufacturer's turbine missile analysis, and is therefore acceptable.”</p>	<p>See PPL letter BNP-2013-104, dated 8/03/2013, there are 25 Endorsements of CCNPP Unit 3 R-COLA Standard Content RAIs for Section 3.5.1.3 questions concerning “Turbine Missiles” issued between 03/2009 and 01/2013. All responses were incorporated in the Bell Bend COLA in revision 04.</p>

<b>Item#</b>	<b><u>BBNPP Chapter 10 SER Text</u></b>	<b><u>Comment</u></b>
3	<p><b><u>Section 10.2.3 Technical Evaluation</u></b></p> <p>“Therefore, the inspections will be performed based on the U.S. EPR inservice inspection plan. However, the staff notes that there are open items (reference RAI 100, Questions 10.02.03-9a and 9b) for the inservice inspection plan in U.S. EPR FSAR. Therefore, the CCNPP Unit 3 turbine rotor inservice inspection program is dependent on the satisfactory resolution of the aforementioned open items. The staff will update this report to reflect the final disposition of open items (reference RAI 100, Questions 10.02.03-9a and 9b). <b>RAI 100, Questions 10.02.03-9a and 9b are being tracked as confirmatory items.</b>”</p>	The NRC staff issued follow-up RAI 294 Questions 10.02.03-21 & -22 to U.S. EPR RAI 100 Question 10.02.03-9. AREVA responded to these follow-up questions on May 19, 2011 (ML11140A003) and December 15, 2011 (ML11349A355).
4	<p>U.S. EPR COL Information Item 10.2-6 will be evaluated for the BBNPP COL application following the staff’s evaluation of this item in the reference CCNPP3 SE for Chapter 10.</p> <p>.....</p> <p>With regard to U.S. EPR COL Information Items 10.2-6, 7, and 8, evaluation of these items is deferred until they are addressed in the reference U.S. EPR design certification application.</p>	Information addressing this COL item is contained in Bell Bend COLA rev 04.
5	<p>U.S. EPR COL Information Item 10.2-7 will be evaluated for the BBNPP COL application following the staff’s evaluation of this item in the reference CCNPP3 SE for Chapter 10.</p> <p>.....</p> <p>With regard to U.S. EPR COL Information Items 10.2-6, 7, and 8, evaluation of these items is deferred until they are addressed in the reference U.S. EPR design certification application.</p>	Information addressing this COL item is contained in Bell Bend COLA rev 04
6	<p>U.S. EPR COL Information Item 10.2-8 will be evaluated for the BBNPP COL application following the staff’s evaluation of this item in the reference CCNPP3 SE for Chapter 10.</p> <p>.....</p> <p>With regard to U.S. EPR COL Information Items 10.2-6, 7, and 8, evaluation of these items is deferred until they are addressed in the reference U.S. EPR design certification application.</p>	Information addressing this COL item is contained in Bell Bend COLA rev 04

<u>Item#</u>	<u>BBNPP Chapter 10 SER Text</u>	<u>Comment</u>
7	<p>“Minor wording changes were made to U.S. EPR COL Information Item 10.3-2 in response to U.S. EPR RAI 547 which stated, in part, “...Following the issuance of RAI 533, Question 3.6.1-13, it was identified by the staff that there are a number of similar COL [Information Items] I/Is in FSAR Tier 2 Table 1.8-2 that cannot theoretically be completed by the COL applicant prior to issuance of a COL license.” Wording changes were made to U.S. EPR COL Information Item 10.3-2 to require submittal of the “essential elements” of the FAC program prior to issuance of a COL. A license condition contained in BBNPP COL application Part 10, Appendix A, requires implementation of the FAC program; however, the BBNPP COL applicant removed the implementation schedule from the proposed license condition. The implementation schedule, which was removed from proposed License Condition COL Information Item 10.3-2, “...prior to fuel loading” is acceptable and should be reinserted in the subject proposed license condition. <b>Revision of License Condition 10.3-2 is being tracked as an open item.</b>”</p>	<p>Calvert Cliffs Unit 3 RAI 401 Q 10.03.06-5, letter UN#12-070, dated 11/27/2013 addressed this item. PPL endorsed this response as applicable to Bell Bend by letter BNP-2013-167, dated 12/19/2013.</p>