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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 No. 12
BNP-2010-095 Docket No. 52-039**

- References:
- 1) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information No. 12 (RAI No. 12) – ICE1-2024, e-mail dated June 2, 2009
 - 2) R. Sgarro (PPL Bell Bend, LLC) to U.S. Nuclear Regulatory Commission, BNP-2009-109, "Response to RAI Set No. 12 and Request for Extension for Question 2", dated June 26, 2009
 - 3) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Issues Related to RAI Responses for RAI No. 6, RAI No. 12, and RAI No. 30, dated August 7, 2009
 - 4) R. Sgarro (PPL Bell Bend, LLC) to U.S. Nuclear Regulatory Commission, BNP-2009-212, "Request for Extension for RAI Set 12 Question 2", dated September 10, 2009

The purpose of this letter is to respond to the request for additional information (RAI) identified in the NRC correspondence (Reference 1) to PPL Bell Bend, LLC (PPL). This RAI addresses Instrumentation and Control as discussed in Chapter 7 of the Final Safety Analysis Report (FSAR) and submitted in Part 2 of the Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA).

In Reference 2, PPL provided a response to RAI No. 12, Question 07.01-A Appendix 1, and requested an extension for response to Question 07.01-A Appendix 2. Subsequent to PPL transmitting Reference 2, the NRC granted a 60-day response period for RAI No. 12 requesting a response to RAI No. 12 by September 14, 2009 (Reference 3).

In Reference 4, PPL extended the response due date for RAI No. 12, Question 07.01-A Appendix 2, primarily due to on-going discussions related to Post Accident Monitoring instruments and Technical Specifications within the U.S. EPR Design Center Working Group (DCWG) and the NRC staff. In that extension, PPL identified that the response to RAI No. 12, Question 07.01-A Appendix 2 would be provided within 30 days of the Calvert Cliffs Nuclear Power Plant Unit 3 (CCNPP3) (Reference COLA) response to a similar RAI question. The CCNPP3 response was submitted to the U.S. NRC on April 6, 2010.

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NRC


The enclosure contains our response to RAI No. 12, Question 07.01-A Appendix 2. There are no new regulatory commitments in this letter.

Should you have 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 April 16, 2010

Respectfully,



Rocco R. Sgarro

RRS/kw

Enclosure: As stated

cc: (w/o Enclosures)

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Enclosure

Response to NRC Request for Additional Information No. 12
Question 07.01-A Appendix 2
Bell Bend Nuclear Power Plant

Question 07.01-A Appendix-2:

Describe site-specific post-accident monitoring (PAM) variables related to the ultimate heat sink (UHS), meteorological, and radiation monitoring.

10 CFR 52.79(a)(17) and 50.34(f)(2)(xvii) require, in part, continuous sampling of radioactive iodines and particulates in gaseous effluents from all potential accident release points, and for onsite capability to analyze and measure these samples. Additionally, 10 CFR Part 50, Appendix A, General Design Criteria (GDC) 13 requires, in part, that instrumentation be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions. Regulatory Guide 1.97, Revision 4, "Criteria for Accident Monitoring Instrumentation for Nuclear Power Plants," provides a basis for evaluating conformance to GDC 13. Regulatory Guide 1.97 endorses IEEE Std. 497-2002, "IEEE Standard Criteria for Accident Monitoring Instrumentation for Nuclear Power Generating Stations" which addresses selecting and categorizing post accident monitoring variables. Describe the site-specific post-accident monitoring (PAM) variables related to meteorological, radiation monitoring, and other site-specific instrumentation.

Response:

After this RAI question was issued, AREVA submitted Revision 1 to the U.S. EPR FSAR Chapter 7 (May 29, 2009; ML91671513). This U.S. EPR FSAR Chapter 7 revision included a new COL Applicant Item that states:

7.5.2.2.1 Conformance with Regulatory Guide 1.97 and BTP 7-10

A COL applicant that references the U.S. EPR design certification will update the initial inventory list of accident monitoring variables in Table 7.5-1-Initial Inventory of Post-Accident Monitoring Variables, with a final list upon completion of the emergency operating and abnormal operating procedures prior to fuel loading.

This new COL Item acknowledges that, in order to implement the Regulatory Guide 1.97 and IEEE Standard 497-2002 guidance, site-specific emergency operating procedures (EOPs) and abnormal operating procedures (AOPs) need to be developed and validated. The accident monitoring variables needed to implement the regulatory guidance will be identified and included in a site-specific Table 7.5-1 and the associated Type A, B and C instrumentation will be included in Plant Specific Technical Specifications.

This new COL Item was included in the following BBNPP COLA locations in Revision 2:

- Part 2, FSAR Table 1.8-2, "FSAR Sections that Address COL Items" as Item Number 7.1-1
- Part 2, FSAR Chapter 7, Instrumentation and Controls, Section 7.5.2.2.1, "Conformance with Regulatory Guide 1.97 and BTP 7-10
- Part 10, Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure, Appendix A, Proposed License Conditions, COL Items as COL Item 7.1-1 in Section 7.5.2.2.1

COLA Impact:

The BBNPP COLA will not be revised as a response to this question, but will be modified after EOP and AOP development and validation as necessary to implement COL Item 7.1-1.