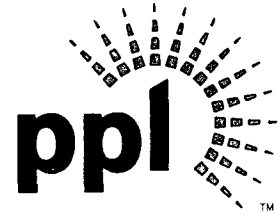


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June 26, 2009

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

**BELL BEND NUCLEAR POWER PLANT  
RESPONSE TO RAI SET NO.12 QUESTION 1 AND  
REQUEST FOR EXTENSION FOR QUESTION 2  
BNP-2009-109                      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, email dated June 2, 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 (PPL). This RAI addresses the Acceptance Criteria and Guidelines for Instrumentation and Control Systems Important to Safety, associated with the ultimate heat sink and post-accident monitoring, as discussed in Section 7.0, 7.4, and 7.5 of the Final Safety Analysis Report (FSAR), as submitted in Part 2 of the Bell Bend Nuclear Power Plant Combined License Application (COLA).

The enclosure provides our response to RAI No. 12, Question 07.01-A Appendix-1. There are no new regulatory commitments.

The response to Question 07.01-A Appendix-2 identified in RAI Set No. 12 was requested to be provided within 30 days. The preparation of the BBNPP response is dependent on the response for the Calvert Cliffs Nuclear Power Plant Unit 3 (CCNPP3) RAI 66, Question 07.01-A Appendix 2 for a similar question. The CCNPP3 response date has been extended in order to have the research completed to identify the scope of the Post Accident Monitoring instrumentation requirements for both the generic and site-specific elements of the Reference COLA (RCOLA). PPL requires additional time to prepare the information supporting this response in order to maintain alignment and consistency with the RCOLA. A response will be provided to the NRC by August 14, 2009.

If you have any questions, please contact the undersigned at 570.802.8102.

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

Executed on June 26, 2009

Respectfully,

A handwritten signature in cursive script, appearing to read "Rocco R. Sgarro".

Rocco R. Sgarro

Enclosure: As stated

RRS/cw

DO79  
NRD

cc: (w/o Enclosures)

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Enclosure 1

Response to NRC Request for Additional Information Set No. 12, Question 1  
Bell Bend Nuclear Power Plant

## RAI Set No. 12

### Question 07.01-A Appendix-1

Describe the associated component control and indication necessary for safe shutdown as related to the ultimate heat sink (UHS).

During safe shutdown the heat removal systems must operate to maintain adequate cooling of the core. 10 CFR Part 50, Appendix A, General Design Criteria (GDC) 44, is discussed as one of the acceptance criteria in Standard Review Plan (SRP) Appendix 7.1-A. GDC 44 states in part, "A system to transfer heat from structures, systems, and components important to safety, to an ultimate heat sink shall be provided...." Section 7.4 of the SRP references the acceptance criteria of Appendix 7.1-A as providing acceptance criteria to evaluate component control for safe shutdown. Describe the site-specific associated component control and indication necessary for safe shutdown as related to the ultimate heat sink (UHS).

### Response

The function of the UHS at BBNPP is provided by the Essential Service Water System, and is incorporated by reference from the U.S. EPR FSAR with the exception of the site-specific make-up water system. The site-specific Essential Service Water Emergency Makeup System (ESWEMS) provides a safety-related make-up water source and flow path to the ESWS Cooling Tower basins. The ESWS Cooling Tower basins are designed to not require make-up water during the first 72 hours following a design basis accident. The ESWS Cooling Tower basins contain sufficient volume to provide the required cooling for heat removal for this period. As a result, ESWEMS water is not necessary to achieve safe shutdown because safe shutdown is achieved within the first 72 hours following the design basis accident in accordance with Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Power Plants".

After the 72 hour period, makeup water is necessary to replenish cooling water lost to evaporation, drift, blowdown and other losses to ensure the ESWS Cooling Tower basin water levels remain within established limits under design basis event conditions. The safety-related ESWEMS will be provided with the following instrumentation to properly monitor and control system operation from the control room:

- ESWEMS pump discharge pressure
- ESWEMS pump discharge flow indication
- Debris strainer differential pressure
- Valve position indication
- Pond temperature
- Pond level
- ESWEMS pump operating status

The above instrumentation will be classified as safety-related.

### COLA Impact

No change to the COLA is required.