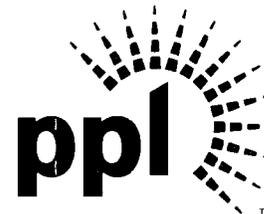


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September 3, 2009

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

**BELL BEND NUCLEAR POWER PLANT  
RESPONSE TO RAI SET No. 41  
BNP-2009-252      Docket No. 52-039**

References: 1) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information No. 41 (RAI No. 41) – EEB-2690, email dated August 11, 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 Station Blackout, as discussed in Section 8.4 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. 41, Question 08.04-1.

Our response to Question 08.04-1 does not include any new regulatory commitments.

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 September 3, 2009

Respectfully,

A handwritten signature in black ink that reads "Rocco R. Sgarro". The signature is written in a cursive style with a large, prominent "R" at the beginning.

Rocco R. Sgarro

RRS/kw

Enclosure: As stated

DO19  
NRC

cc: (w/o Enclosures)

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Enclosure 1

Response to NRC Request for Additional Information Set No. 41  
Bell Bend Nuclear Power Plant

**Question 08.04-1**

Section 8.4.2.6 of the Bell Bend Nuclear Power Plant (NPP) Final Safety Analysis Report (FSAR) indicates that Bell Bend NPP utilizes the coping analysis in Section 8.4.2.6 of the U.S. EPR FSAR. The last paragraph of Section 8.4.2.6.1 of the U.S. EPR FSAR, states that "For the EPR, this results in a worst-case duration of eight hours. Subsequent refinement of site-specific data may result in a site-specific reduction to four or two hours."

The Station Blackout (SBO) rule (10 CFR 50.63a) requires that each COL applicant demonstrate the capability to withstand and recover from an SBO condition within a specified duration. Bell Bend incorporates the U.S. EPR Design certification which identifies its conformance to Regulatory Guide 1.155, Station Blackout in section 8.4. The specified station blackout duration shall be based on the four factors listed in 10 CFR 50.63a.

- (1) Please identify the site-specific specified duration and recovery of a station blackout at Bell Bend NPP.
- (2) If the specified duration for a specified station blackout at Bell Bend NPP is other than 8 hours, please indicate the coping duration; and
- (3) Clarify the site-specific data involved in any reduction of the duration of the station blackout. Regulatory Guide 1.155, Station Blackout (August 1988).

The specific information required to be added to the FSAR for this issue is identified in 50.63(c)(1).

**Response:**

An evaluation of SBO capability is provided generically for the U.S. EPR plant within U.S. EPR FSAR Section 8.4 and addresses the four factors required by 10 CFR 50.63. NRC Regulatory Guide (RG) 1.155 presents a method acceptable to the NRC staff for determining the specified duration for which a plant should be able to withstand an SBO. The evaluation provided in the U.S. EPR FSAR is consistent with the RG 1.155 guidance. Section B of RG 1.55 indicates that implementation of the methods results in an "acceptable station blackout duration capability from 2 to 16 hours, depending on a comparison of the plant's characteristics with those factors that have been identified as significantly affecting the risk from station blackout." Due to the redundancy of the emergency AC power design and number of sources needed for decay heat removal, the U.S. EPR design is designated as "Emergency AC Power Configuration Group A" in accordance with RG 1.155, Table 3. This results in an acceptable station blackout duration capability ranging from 2 to 8 hours, in accordance with RG 1.155, Table 2.

The conservative analysis described in the U.S. EPR FSAR satisfies the requirements of 10 CFR 50.63 and results in selection of a U.S. EPR SBO coping duration of not more than eight hours. While subsequent refinement of the conservative analysis using site-specific data may result in a lower required coping duration, this refinement is not required to demonstrate compliance with the rule. Therefore, BBNPP has elected to incorporate the conservative generic evaluation included within the U.S. EPR FSAR by reference which demonstrates the capability to withstand and recover from an SBO condition with a coping duration of 8 hours based on the four factors in 10 CFR 50.63.

**COLA Impact:**

The COLA will not be changed as a result of this RAI response.