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November 09, 2009

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

**BELL BEND NUCLEAR POWER PLANT
RESPONSE TO RAI SET 50
BNP-2009-359 Docket No. 52-039**

References: 1) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information No. 50 (RAI No. 50) – EEB-3454, email dated November 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. This RAI addresses Alternating Current (AC) Power Systems (Onsite), as discussed in Section 8.3.1 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. 50, Question 08.03.01-6.

The only new regulatory commitment contained in this letter is to update the BBNPP COLA 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 November 09, 2009

Respectfully,


Rocco R. Sgarro

RRS/kw

Enclosure: As stated

D079
HRO

cc: (w/o Enclosures)

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Enclosure 1

Response to NRC Request for Additional Information Set No. 50
Bell Bend Nuclear Power Plant

Question 08.03.01-6

Section 8.3.1:

Cathodic Protection (CP) is not addressed for preventive measure of buried carbon steel piping from corrosion. Provide a description of cathodic protection design and method for site-specific buried piping, as applicable, identifying the industry standards which will be followed for design, installation and surveillance.

Section 8.3.1:

Electric Heat tracing system is not addressed for providing electric heating where temperature above ambient is required for system operation and freeze protection for site-specific outdoor service components and warming of process fluids (either indoor or outdoor), as applicable. Please identify the industry standards which will be followed for design and installation of electric heat tracing.

Response:

Cathodic Protection:

Cathodic protection will be provided for buried carbon steel pipe. The cathodic protection system for buried pipes will be either impressed current or sacrificial galvanic anode, depending on soil conditions and pipe size. The design, installation and surveillance of the cathodic protection will be in accordance with industry standards; specifically NACE (National Association of Corrosion Engineers) Standard SP0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems, and associated NACE standards and publications.

Heat Tracing/Freeze Protection:

The general requirements for electrical heat tracing and freeze protection will be added to FSAR Chapter 8, Electric Power. This will include identification of industry standards. There is no standard review plan (SRP) guidance or regulatory requirements for heat tracing/freeze protection. The system is designed and installed to the requirements identified in the referenced ANSI/IEEE and IEEE Standards.

COLA Impact:

The BBNPP COLA will not be revised as a result of the response regarding Cathodic Protection.

The BBNPP COLA will be revised as a result of the response for Heat Tracing/Freeze Protection as follows:

8.3.1.4 Electrical Heat Tracing

Electrical heat tracing systems are installed to provide freeze protection for service components and process fluids, as required. Power for heat tracing is supplied from the onsite distribution system buses. If applicable, safety-related heat tracing is Class 1E and assigned to the appropriate division of safety-related power.

Freeze protection is incorporated at the individual system level using insulation for external tanks, tubing, instruments, and piping that may freeze during winter weather.

8.3.1.4.1 Analysis

There is no standard review plan (SRP) or regulatory guidance provided for electric heat tracing systems. ANSI/IEEE STD 622-1987 (ANSI/IEEE, 1987) and IEEE STD 515-2004 (IEEE, 2004) are the standards used for design, installation and testing of electric heat tracing systems.

8.3.3 REFERENCES

{**NRC, 1988.** Station Blackout, Regulatory Guide 1.155, U.S. Nuclear Regulatory Commission, August 1988.}

ANSI/IEEE, 1987. American National Standard for IEEE Recommended Practice for the Design and Installation of Electric Heat Tracing Systems for Nuclear Power Generating Stations, ANSI/IEEE STD 622-1987, Institute of Electrical and Electronics Engineers, 1987.

IEEE, 2004. IEEE Standard for the Testing, Design, Installation, and Maintenance of Electrical Resistance Heat Tracing for Industrial Applications, IEEE STD 515-2004, Institute of Electrical and Electronics Engineers, 2004}