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June 1, 2010

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

**BELL BEND NUCLEAR POWER PLANT  
RESPONSE TO RAI No. 64  
BNP-2010-118      Docket No. 52-039**

- References:
- 1) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information No. 64 (RAI No. 64) – CQVP-2813, email dated December 3, 2009 (ML093440808)
  - 2) BNP-2010-020, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. Nuclear Regulatory Commission, "Partial Response to RAI No. 64 and Request for Extension," dated January 22, 2010 (ML100280181)

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 Initial Test Program, as discussed in Section 14.2 of the Final Safety Analysis Report (FSAR), as submitted in Part 2 of the Bell Bend Nuclear Power Plant Combined License Application (COLA).

Reference 2 provided PPL's response to RAI 64, Questions 14.02-20 through 25, with the exception of Question 14.02-22. The enclosure provides our response to RAI No. 64, Question 14.02-22, which includes revised COLA content. This future revision of the COLA is the only new regulatory commitment.

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 June 1, 2010

Respectfully,

A handwritten signature in black ink, appearing to read "Rocco R. Sgarro".

Rocco R. Sgarro

RRS/dw

Enclosure: As stated

10079  
NR0

cc: (w/o Enclosures)

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Enclosure

Response to NRC Request for Additional Information No. 64;  
Question 14.02-22  
Bell Bend Nuclear Power Plant

**RAI 64****Question 14.02-22:**

Standard Review Plan (SRP, NUREG-0800) Section 14.2.II.3.A.ii, concerning acceptance criteria for combined license (COL) and operating license applicants, "Management Organizations," states that "[t]he applicant should provide (1) the organizational descriptions for any augmenting organizations or other personnel who will manage or execute any phase of the test program, and (2) the responsibilities, interfaces, and authorities of the principal participants."

The applicant's FSAR, Section 14.2.2 "Organization and Staffing," states, in part, that "[t]he plant operating, maintenance, and engineering personnel are utilized to the extent practicable during the Startup Test Program. The plant staff operates permanently installed and powered equipment for Phases I through IV and subsequent system tests. Plant personnel such as instrument and controls, chemistry, computer, radiation protection, and maintenance personnel are used to perform tests and inspections in the areas in which they will primarily work during plant operation." Section 13.1 of the applicant's FSAR, "Organizational Structure of Applicant," provides some details on the roles and responsibilities of plant staff.

The NRC staff requests that the applicant supplement section 14.2.2 of its FSAR to describe in detail the responsibilities, interfaces, and authorities of the principal participants of the plant staff as they relate to the initial test program as described in the SRP, or to justify an alternative.

In addition, the applicant should address the following topics:

- 1) The position description for each manager that provides personnel to complete the ITP should include a statement that the manager will provide personnel to complete the ITP.
- 2) The ITP should state whether the preoperational/start-up engineers will be responsible for running preoperational and startup tests with plant personnel acting in a support role, or, if a different chain of command will be established, the ITP should describe it.
- 3) The ITP should state whether the start-up group or operations has the ultimate authority over the ITP.
- 4) The description of the engineering manager's responsibilities should indicate whether the engineering manager is part of the test review team (TRT).
- 5) Which organization has responsibility for fuel loading during the ITP?
- 6) Identify who will manage the workload of plant staff performing ITP and other duties.
- 7) Identify and describe the controls that will be in place to manage the workload of plant staff performing ITP and other duties.

**Response:**

Staff request that the applicant supplement FSAR Section 14.2.2:

In the response to RAI 64, Questions 14.02-23 and 25, transmitted in PPL Bell Bend, LLC (PPL) letter BNP-2010-020, dated January 22, 2010 (ML100280181), PPL indicated the Bell Bend Nuclear Power Plant (BBNPP) FSAR Section 14.2 was changed in Revision 2 to clarify responsibilities for control of the Initial Test Program (ITP).

Questions 1), 6) and 7):

The position descriptions for the Management Positions Responsible for: Operations; Plant Engineering; and Planning, Scheduling and Outages; will be supplemented with a statement concerning staffing and workload management for the ITP. See COLA Impact for COLA Part 2, FSAR Section 13.1.2.2.1.3, 13.1.1.4.1.7, and 13.1.2.2.1.5, respectively, and COLA Part 11, QAPD Section A for the applicable position descriptions.

Question 2):

The Startup Manager is responsible for implementation of the ITP and direction of the individual tests. BBNPP Operations is responsible for establishing the conditions under which tests may be conducted, ensuring bounding conditions are not exceeded, and stopping tests if necessary. BBNPP Operations operates plant equipment in support of the ITP and controls the overall plant status and the conditions under which testing is allowed to proceed.

Question 3):

The Startup Manager is responsible for implementation of the program within the bounding conditions established by BBNPP Operations. BBNPP Operations is responsible for manipulating plant equipment during the conduct of tests, monitoring the plant to ensure bounding conditions are not exceeded, and stopping the tests, if necessary, to prevent exceeding the bounding conditions. BBNPP Operations has ultimate authority over whether, and in what circumstances, a test may be conducted.

Question 4):

The description of the Management Position Responsible for Plant Engineering will be revised to indicate this position is part of the test review team. See COLA Impact for COLA Part 2, FSAR Section 13.1.1.4.1.7 and COLA Part 11, QAPD Section A.

Question 5):

U.S. EPR FSAR Section 14.2.10.1 "Initial Fuel Loading," incorporated by reference with no departures or supplements in BBNPP FSAR Section 14.2.10 states, "The initial core loading is directly supervised by a senior licensed operator having no other concurrent duties." This senior licensed operator is a member of the BBNPP Operations Department.

**COLA Impact:**

The BBNPP FSAR will be revised as follows:

**13.1.1.4.1.7 Management Position Responsible for Plant Engineering**

During the operations phase, this position reports to the Vice President, Engineering. The Manager, Plant Engineering provides direction for System, Reactor and Technical Support Engineering groups. This includes system and equipment performance, reliability, testing, technical programs administration, analysis of reactor flux data and refueling operations, incore fuel management and maintaining special nuclear material accountability.

The Management Position Responsible for Plant Engineering directs a staff of assistant managers, supervisors, engineers and other technical personnel whose primary function is to provide technical support to the operation of BBNPP.

Staff members reporting to the Management Position Responsible for Plant Engineering may be assigned to conduct portions of the Initial Test Program (ITP). In those cases, the Management Position Responsible for Plant Engineering is responsible for ensuring that the individuals assigned meet the appropriate qualification requirements and for managing the individual staff member's work load.

The Management Position Responsible for Plant Engineering is a member of the Test Review Team from the team's formation until the team is disbanded.

#### **13.1.2.2.1.3 Management Position Responsible for Operations**

This position reports to the Management Position Responsible for Direction of Plant Operations and is responsible for the day-to-day operation of all equipment associated with the generation of power including Chemistry and Radwaste. This position assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements, operating license and the quality assurance program. This position has the authority to remove equipment from service, if the equipment is judged to be unsafe to operate. This individual coordinates the maintenance of adequate records to historically record the operation of the unit.

Staff members reporting to the Management Position Responsible for Operations may be assigned to conduct portions of the Initial Test Program (ITP). In those cases, the Management Position Responsible for Operations is responsible for ensuring that the individuals assigned meet the appropriate qualification requirements and for managing the individual staff member's work load.

The Management Position Responsible for Operations is also responsible for the Fire Protection Program. The reporting relationships and organization of the Fire Protection program is described in Section 9.5.

#### **13.1.2.2.1.5 Management Position Responsible for Planning, Scheduling and Outages**

The Management Position Responsible for Planning, Scheduling, and Outages reports directly to the Management Position Responsible for Direction of Plant Operations and is responsible for planning and implementation of outages and planning and scheduling of work activities. The Management Position Responsible for Planning, Scheduling, and Outages controls outage activities through an Outage Manager and an Assistant Outage manager. Other outage personnel include general supervisors and supervisors. Planning and scheduling activities are controlled through the Superintendent, Work Management.

Staff members reporting to the Management Position Responsible for Planning, Scheduling and Outages may be assigned to conduct portions of the Initial Test Program (ITP). In those cases, the Management Position Responsible for Planning, Scheduling and Outages is responsible for ensuring that the individuals assigned meet the appropriate qualification requirements and for managing the individual staff member's work load.

FSAR Section 14.2.2, Organization and Staffing:

### **Startup Organization**

{BBNPP will have a site-specific startup organization. As discussed in Section 13.1, the Startup Manager reports to the Vice President, Engineering.

The Startup Manager is responsible for startup test programs, including the preparation of test procedures, performance of applicable initial tests, and the preparation of appropriate test related documentation. Test procedures are prepared by AREVA or the accountable Startup/Preoperational Test Engineer with assistance from AREVA, the architect engineer, or other vendors, as required. The Startup Manager will ensure that all procedures that affect startup are properly reviewed by the appropriate organizations. Figure 14.2-1 shows the organizational reporting relationships.

The plant operating, maintenance, and engineering personnel are utilized to the extent practicable during the Startup Test Program. The plant Operations staff operates permanently installed and powered equipment for Phases I through IV and subsequent system tests as requested by the Startup Manager. Plant personnel such as instrument, chemistry, computer, radiation protection, and maintenance personnel are used to perform tests and inspections in the areas in which they will primarily work during plant operation. Utilizing plant staff, during startup in their respective operational areas, will maximize the transfer and retention of experience and knowledge gained during the startup program to the subsequent commercial operation.

The BBNPP COLA Part 11A, Quality Assurance Program Description, Rev. 1, will be revised as follows:

## **SECTION A**

### **ORGANIZATION**

#### **Management Position Responsible for Plant Engineering**

Prior to the operations phase, this position reports to the Vice President, Engineering, and is responsible for construction activities.

During the Operations phase, this position reports to the Vice President, Engineering and is responsible for day to day engineering and technical services to support plant operations and maintenance including engineering programs, equipment reliability, system engineering, and nuclear fuel services.

Staff members reporting to the Management Position Responsible for Plant Engineering may be assigned to conduct portions of the Initial Test Program (ITP). In those cases, the Management Position Responsible for Plant Engineering is responsible for ensuring

that the individuals assigned meet the appropriate qualification requirements and for managing the individual staff member's work load.

The Management Position Responsible for Plant Engineering is a member of the Test Review Team from the team's formation until the team is disbanded.

### **Management Position Responsible for Operations**

During the operations phase, this position reports to the Management Position Responsible for Direction of Plant Operations and is responsible for plant operations including radiation protection, chemistry and radwaste. This position assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements, Operating License, the quality assurance program, and provides day-to-day direction and management oversight of onsite activities. The Management Position Responsible for Operations in carrying out the responsibility for overall safety of plant operations, is responsible for timely referral of appropriate plant matters to management and independent reviewers.

Staff members reporting to the Management Position Responsible for Operations may be assigned to conduct portions of the Initial Test Program (ITP). In those cases, the Management Position Responsible for Operations is responsible for ensuring that the individuals assigned meet the appropriate qualification requirements and for managing the individual staff member's work load.

### **Management Position Responsible for Planning, Scheduling and Outages**

During the operations phase, this position reports to the Management Position Responsible for Direction of Plant Operations and is responsible for planning and implementation of outages and planning and scheduling of work activities.

Staff members reporting to the Management Position Responsible for Planning, Scheduling and Outages may be assigned to conduct portions of the Initial Test Program (ITP). In those cases, the Management Position Responsible for Planning, Scheduling and Outages is responsible for ensuring that the individuals assigned meet the appropriate qualification requirements and for managing the individual staff member's work load.

Figure 14.2-1 {BBNPP Startup Organization}

