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

**BELL BEND NUCLEAR POWER PLANT  
RESPONSE TO RAI 119  
BNP-2012-219      Docket No. 52-039**

- References:
- 1) M. Canova (NRC) to R. R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information Final Letter No. 119 (RAI No. 119) – LB1 1578, email dated June 28, 2012
  - 2) BNP-2012-190, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, “Schedule Information for Responses to RAI 119” dated August 9,, 2012
  - 3) BNP-2012-212, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, “10 CFR Part 30 and 40 License Withdrawal Request” dated September 6, 2012

The purpose of this letter is to provide the PPL Bell Bend, LLC (PPL) response to Request for Additional Information (RAI) No. 119 (Reference 1). Reference 2 indicated that PPL would provide a response to RAI No. 119 on or before September 7, 2012. RAI No. 119, Question 01-4, addresses standard license conditions and program elements for Title 10 of the Code of Federal Regulations (CFR) Parts 30, 40, and 70 included in Section 1.4, Requested Licenses and Authorized Uses, of the General and Administrative Information submitted as Part 1 of the Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA). Reference 3 is the PPL letter requesting the withdrawal of the 10 CFR Part 30 and 40 licenses from the BBNPP COLA. The Enclosure provides PPL’s response to RAI No. 119, Question 01-4.


There are no new regulatory commitments contained in this correspondence.

Should you have questions, please contact the undersigned at 610.774.7552.

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

Executed on September 7, 2012.

Respectfully,

  
Rocco R. Sgarro

RRS/kw

Enclosure: As Stated.

DIOZ  
NPO

cc: w/ Enclosure

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w/o Enclosure

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Enclosure

Response to RAI No. 119, Question 01-4

**RAI 119****Question 01-4**

The purpose of this RAI is to 1) determine if the proposed standard license conditions for title 10 of the Code of Federal Regulations (CFR) Parts 30, 40, and 70 are appropriate for the PPL Bell Bend Combined Operating License Application (COLA) and 2) request additional information in the application to address program elements to ensure that PPL Bell Bend will have in place the necessary controls to allow receipt of byproduct and source material prior to the 10 CFR Part 52, Section 103(g) finding.

In the PPL Bell Bend COL application transmittal letter dated October 10, 2008, and in Part 1, section 1.4, PPL Bell Bend requested such other licenses as would be required for receipt, possession and use of source, byproduct and special nuclear material in connection with the operation of Unit 3. The staff notes that such licenses would be in accordance with Commission regulations in 10 CFR Parts 30, 40, and 70.

In a memorandum (ML083030065) dated December 9, 2008, the staff proposed the following standard license conditions and requirements regarding 10 CFR Parts 30, 40, and 70:

- (1)
  - (i) Pursuant to the Act and 10 CFR Part 70, to receive and possess at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, described in the final safety analysis report (FSAR), as supplemented and amended;
  - (ii) Pursuant to the Act and 10 CFR Part 70, to use special nuclear material as reactor fuel, after the finding in Section 2.D(1) of this license has been made, in accordance with the limitations for storage and amounts required for reactor operation, and described in the FSAR, as supplemented and amended;
- (2) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor
- (3) instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required, any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

Please discuss whether the proposed standard license conditions and requirements are considered appropriate to support the PPL Bell Bend COL.

In addition, please discuss, and provide additional information as needed, which parts of the application provide sufficient information to support compliance with the applicable portions of 10 CFR Part 30 and 40. For example, describe how you have addressed in the application the radiation protection program, security and fire protection program elements that will be in place prior to receipt of the byproduct or source material authorized by the proposed license above.

To facilitate these reviews, the staff has created the attached tables (see **Attachments 1 and 2**) to collect the information relevant to your application. Please identify and list applicable sections of your application which include/provide the specific information

Note that it is the staff intention and belief that its current review of the PPL Bell Bend COLA will identify the necessary controls regarding the receipt of new fuel on site in accordance with 10 CFR Part 70.

**Response**

The following table, "Cross-Reference of Regulations and Regulatory Guidance in Support of Review of Part 70 License Application Versus Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA)" correlates the applicability of the identified 10 CFR 70 requirements to the BBNPP COLA content.

PPL withdrew the request for 10 CFR Part 30 and 40 licenses with letter BNP-2012-212<sup>1</sup>, dated September 6, 2012. Accordingly, similar cross-reference tables for 10 CFR 30 and 40 are not included in this response. As stated in letter BNP-2012-212<sup>2</sup>, PPL will re-apply for these licenses at a future time when procurement specifications for these materials are established.

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<sup>1</sup> BNP-2012-212, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, "10 CFR Part 30 and 40 License Withdrawal Request" dated September 6, 2012

<sup>2</sup> *ibid*

**Cross-Reference of Regulations and Regulatory Guidance in Support of Review of Part 70  
License Application Versus Bell Bend Nuclear Power Plant (BBNPP)  
Combined License Application (COLA)**

<b>Review Area</b>	<b>Regulations</b>	<b>Regulatory Guidance</b>	<b>Acceptance Criteria</b>	<b>COLA Chapter</b>
General Information	10 CFR 70.22(a)(1) – (a)(4)  10 CFR 70.23(a)(5)	Chapter 1 of NUREG-1520	Sections 1.1.4, 1.2.4, and 1.3.4 of NUREG-1520.	70.22(a)(1) – COLA Part 1, Chapter 1, Sections 1.2 Description of Business or Occupation, 1.3 Organization and Management, and 1.7 Foreign Ownership, Control, or Domination  70.22(a)(2) – COLA Part 1, Chapter 1, Section 1.4 Requested Licenses and Authorized Uses  70.22(a)(3) – COLA Part 1, Chapter 1, Section 1.4 Requested Licenses and Authorized Uses  70.22(a)(4) – COLA Part 1, Chapter 1, Section 1.4 Requested Licenses and Authorized Uses  70.23(a)(5) – COLA Part 1, Chapter 1, Section 1.5 Financial Qualifications
Organization and Administration	10 CFR 70.22(a)(6) and (a)(8)  10 CFR 70.23(a)(2) and (a)(4)	Chapter 2 of NUREG-1520  Reg Guide 1.8	Section 2.4.3 of NUREG-1520	70.22(a)(6) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant  70.22(a)(8) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures  70.23(a)(2) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant  70.23(a)(4) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures
ISA	N/A pursuant to 10 CFR 70.60	N/A	N/A	N/A

Review Area	Regulations	Regulatory Guidance	Acceptance Criteria	COLA Chapter
Radiation Protection	10 CFR Part 19 10 CFR Part 20 10 CFR 70.22(a)(6) – (a)(8) 10 CFR 70.23(a)(2) – (a)(4)	Chapter 4 of NUREG-1520, Reg Guide 1.8, 8.8, 8.10, 8.15, etc.	Section 4.4 of NUREG-1520	10 CFR Part 19 – COLA Part 2, Chapter 12, Section 12.5 Operational Radiation Protection Program 10 CFR Part 20 - COLA Part 2, Chapter 12, Section 12.5 Operational Radiation Protection Program 70.22(a)(6) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant 70.22(a)(7) – COLA Part 2, Chapter 11 Radioactive Waste Management, Chapter 12 Radiation Protection 70.22(a)(8) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures 70.23(a)(2) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant 70.23(a)(3) – COLA Part 2, Chapter 9, Auxiliary Systems, Chapter 11, Radioactive Waste Management, Chapter 12, Radiation Protection, COLA Part 5, Emergency Plan 70.23(a)(4) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures

Review Area	Regulations	Regulatory Guidance	Acceptance Criteria	COLA Chapter
Radiation Protection	10 CFR Part 70, Subpart G	Chapter 4 of NUREG-1520, Reg Guide 1.8, 8.8, 8.10, 8.15, etc.	Section 4.4 of NUREG-1520	<p>10 CFR Part 70, Subpart G, 70.50 Reporting Requirements – N/A - states that the provisions of 70.50 do not apply to licensees subject to 50.72</p> <p>70.51 Records Requirements – records required prior to license termination. Not addressed in COLA.</p> <p>70.52 Reports of Accidental Criticality – COLA Part 5, Emergency Plan</p> <p>70.55 Inspections – met under compliance with provisions of 10 CFR 50.70</p> <p>70.56 Tests – met under compliance with provisions of 10 CFR 50.59</p> <p>70.59 Effluent Monitoring Reporting requirements – N/A, applies to licensees authorized to possess and use special nuclear material for processing and fuel fabrication, scrap recovery, conversion of uranium hexafluoride, or in a uranium enrichment facility</p>



Review Area	Regulations	Regulatory Guidance	Acceptance Criteria	COLA Chapter
Criticality Safety	<p>10 CFR 70.22(a)(6) – (a)(8).</p> <p>10 CFR 70.24(d)(1) includes an exemption from crit. alarms.</p> <p>10 CFR 70.23(a)(2) – (a)(4)</p> <p>10 CFR 70.52</p>	Chapter 5 of NUREG-1520	Section 5.4.3 of NUREG-1520	<p>70.22(a)(6) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant</p> <p>70.22(a)(7) – COLA Part 2, Chapter 9, Section 9.1 Fuel Storage and Handling, Chapter 11, Radioactive Waste Management, Chapter 12, Radiation Protection, Part 5, Emergency Plan</p> <p>70.22(a)(8) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures</p> <p>70.24(d)(1) – COLA Part 2, Chapter 9, Auxiliary Systems, exemption based on compliance with 10 CFR 50.68</p> <p>70.23(a)(2) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant</p> <p>70.23(a)(3) – COLA Part 2, Chapter 9, Auxiliary Systems</p> <p>70.23(a)(4) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures</p> <p>70.52 Reports of Accidental Criticality – COLA Part 5, Emergency Plan</p>
Chemical Safety	N/A since the Part 70 license does not involve the use of chemicals	N/A	N/A	N/A

Review Area	Regulations	Regulatory Guidance	Acceptance Criteria	COLA Chapter
Fire Safety	10 CFR 70.22(a)(6) – (a)(8)  10 CFR 70.23(a)(2) – (a)(4)	Chapter 7 of NUREG-1520	Section 7.4.3 of NUREG-1520	70.22(a)(6) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant  70.22(a)(7) – COLA Part 2, Chapter 9 Section 9.5.1 Fire Protection, Chapter 13, Section 13.4 Operational Program Implementation, Part 5, Emergency Plan  70.22(a)(8) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures  70.23(a)(2) – COLA Part 2, Chapter 13, Section 13.1 Organizational Structure of Applicant  70.23(a)(3) – COLA Part 2, Chapter 9 Section 9.5.1 Fire Protection, Chapter 13, Section 13.4 Operational Program Implementation  70.23(a)(4) – COLA Part 2, Chapter 13, Section 13.5 Plant Procedures
Emergency Preparedness	10 CFR 70.22(i)(1)(i) or 70.22 (i)(1)(ii).  10 CFR 70.22(i)(3), if an emergency plan is required	Chapter 8 of NUREG-1520	Section 8.4.3 of NUREG-1520	70.22(i)(1)(i) and 70.22(i)(1)(ii) – N/A  70.22(i)(3) – COLA Part 5, Emergency Plan

<b>Review Area</b>	<b>Regulations</b>	<b>Regulatory Guidance</b>	<b>Acceptance Criteria</b>	<b>COLA Chapter</b>
Environmental Protection	10 CFR Part 20  10 CFR 70.22(a)(7) – (a)(8)  10 CFR 70.23(a)(3) – (a)(4)  Selected portions of 10 CFR Part 51, such as 10 CFR 51.52.	Chapter 9 of NUREG-1520  NUREG-1748 for preparing the EA + FONSI related to the possession, inspection, and handling of SNM, if needed.  Otherwise, document the review of these activities as part of the EIS being prepared by the NRC staff under NUREG-1555.	Section 9.4.3 of NUREG-1520 (safety review only)	COLA Part 2, Chapter 9, Section 9.5.1 Fire Protection, Chapter 13, Section 13.4 Operational Program Implementation, Part 5, Emergency Plan
Decommissioning	N/A pursuant to 10 CFR 70.25 (a)	N/A	N/A	N/A
Management Measures	N/A pursuant to 10 CFR 70.60	N/A	N/A	N/A
Material Control and Accounting (MC&A)	10 CFR 20.2201  10 CFR 70.22(b) includes an exemption from a Fundamental Nuclear Material Control Plan for SNM used at a Part 50 reactor site.  10 CFR 74, Subpart B	Currently, there is no regulatory guidance (i.e., NUREG or Reg Guide) to evaluate the possession, inspection, and handling of SNM at a reactor site. Regulations in 10 CFR 74, Subpart B are currently used as guidance to perform the review in this area.	Currently, there is no regulatory guidance (i.e., NUREG or Reg Guide) to evaluate the possession, inspection, and handling of SNM at a reactor site. Regulations in 10 CFR 74, Subpart B are currently used as guidance to perform the review in this area.	70.22(b) – exempts applicants for uses involved with the operation of a Part 50 nuclear power plant. Not currently addressed in COLA.
Physical Security	10 CFR 73.55 and 73.67	Section 13.6.1 of NUREG-0800	Subsection II of Section 13.6.1 of NUREG-0800.	COLA Part 2, Chapter 13, Section 13.4 Operational Program Implementation