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May 2, 2014

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

**BELL BEND NUCLEAR POWER PLANT
RESPONSE TO NRC QUESTIONS ON BBNPP
SCHEDULE MILESTONES AND SELF-SCHEDULING
BNP-2014-070 Docket No. 52-039**

Reference: 1) BNP-2014-009, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, "Initial Response to RAIs ENV-24 and ENV-25" dated January 27, 2014

The purpose of this letter is to provide responses to two recent staff requests in support of development of the Bell Bend Nuclear Power Plant (BBNPP) Draft Environmental Impact Statement.

The first request was for updated BBNPP schedule milestones. Revised COLA content reflecting the updated milestones is provided in the Enclosure. This revised COLA content will be included in a future COLA revision, and is the only regulatory commitment in this correspondence. The revised COLA input includes changes to information previously submitted in Reference 1.


The second request concerned the dispatch of generation from BBNPP. BBNPP generation will be "self-scheduled" in the PJM, as is currently the case for PPL's Susquehanna Steam Electric Station.

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 May 2, 2014.

Respectfully,


Rocco R. Sgarro

RRS/kw

Enclosure: Revised COLA Sections Based on Changes in BBNPP Schedule Milestones

D102
NRC

cc: w/ Enclosure

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Enclosure

Revised COLA Sections Based on Changes in BBNPP Schedule Milestones

Part 1: General Information

Requested Licenses and Authorized Uses

1.4 REQUESTED LICENSES AND AUTHORIZED USES

This application is for a Class 103 combined license under 10 CFR 52 (CFR, 2007b) to construct and operate a U.S. EPR nuclear power plant unit at the BBNPP site, located near Berwick, Pennsylvania. This U.S EPR nuclear power plant unit will be used to produce electricity for sale.

The period of time for which the license for the unit is requested shall begin upon the NRC's granting of the combined license for BBNPP and shall expire 40 years from the date upon which the NRC makes a finding that acceptance criteria are met under 10 CFR 52.103(g) (CFR, 2007c) or allowing operation during an interim period under 10 CFR 52.103(c) (CFR, 2007c).

In addition, this application is for the necessary license issued under 10 CFR 70 (CFR, 2007f) to receive, possess, and use special nuclear material. Special nuclear material shall be in the form of reactor fuel, in accordance with limitations for storage and amounts required for reactor operation, as described in Part 2 of this Combined License Application.

The current scheduled date for the the start of commercial operation for BBNPP is June, 2023.

The name and address of the regulatory agency that has jurisdiction over the rates and services incident to the proposed activity is:

Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Local news publications that circulate in the area around the proposed facility and that are considered appropriate to give reasonable notice of the application to those parties that might have a potential interest in the proposed facility are as follows:

Wilkes Barre Citizens Voice
75 N. Washington Street
Wilkes-Barre, PA 18711

Milton Standard Journal
21 N. Arch Street
Milton, PA 17847

Sunbury Daily Item
200 Market Street
Sunbury, PA 17801

Wilkes Barre Times Leader
15 N. Main Street
Wilkes-Barre, PA 18711

Bloomsburg Press Enterprise
3185 Lackawanna Ave.
Bloomsburg, PA 17815

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1.5 FINANCIAL QUALIFICATIONS

Historical financial information regarding PPL Corporation and its subsidiaries is set forth in the 2007 annual report for PPL Corporation. This report is provided to the Securities and Exchange Commission (SEC) and is available at <http://www.pplweb.com/investors/research+tools/Annual+Report.htm>.

That information supports the conclusion that PPL Bell Bend, LLC possesses or has reasonable assurance of obtaining, the funds necessary to cover the construction and operating costs of BBNPP for the period of the License in accordance with 10 CFR 50.33(f)(2) (CFR, 2007a), and NUREG-1577, the Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance (NRC, 1999).

Projected income statements, including statements of operating cash flow and project costs, are provided in Table 1.9-1 through Table 1.9-10. Table 1.9-1 and Table 1.9-2 provide projected income statements and operating cash flows for BBNPP. Table 1.9-3 provides the total project cost estimated for BBNPP. Projected income statement sensitivity evaluations are provided, for BBNPP, in Table 1.9-4 through Table 1.9-10. These tables were originally developed with an assumed commercial operation date in 2018. This date was utilized for analytical purposes only. The current estimated Commercial Operation Date is June, 2023. Construction and startup schedules will be made final after the COL is issued.

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The projected income statements and operating cash flows for BBNPP presented in Table 1.9-1 and Table 1.9-2 demonstrate the project's financial viability. The project's financial robustness is further evidenced by the results of sensitivity analyses presented in Tables Table 1.9-4 through Table 1.9-10. The sensitivity analyses, which reflect the financial impact of various potential adverse changes to base case assumptions, including higher borrowing costs, lower market prices, lower output capacity, elimination of Production Tax Credits, and higher construction capital costs, indicate that despite being stressed under various scenarios, the project's proforma income statement continues to remain financially attractive, thus supporting a strong business case for the project.

As reflected in Table 1.9-3, the total project cost estimated for BBNPP is [Proprietary Information - Withheld Under 10 CFR 2.390(a)(4) - See Part 9 of the COL Application] (in nominal as-spent dollars). The project is expected to be financed with approximately 70% debt and 30% equity during pre-construction with 7% cost of borrowing and 90% debt and 10% equity during construction with 5.0% cost of borrowing. The planned debt/equity ratio for the financing of BBNPP is consistent with the provisions for federal loan guarantees included in the Energy Policy Act of 2005 (PLN, 2005). As more detailed information is developed regarding cost and financing of the facility, it will be submitted to the NRC, as appropriate.

PPL Energy Supply, LLC will provide the initial capitalization and contribution of equity to PPL Bell Bend, LLC, required for project financing of plant construction. In addition, PPL Energy Supply, LLC will provide a parent support agreement that will make available \$63 million to PPL Bell Bend, LLC, during plant operation. This amount covers the estimated O&M costs that BBNPP would expect to incur over a six month outage and would provide additional assurance that PPL Bell Bend is financially qualified to operate BBNPP.

The ability of PPL Energy Supply, LLC to meet these financial commitments to PPL Bell Bend, LLC, is demonstrated by PPL Energy Supply's 2007 Form 10-K filing with the Security and Exchange Commission which can be found at <http://www.shareholder.com/ppl/edgar2TEST.cfm?CIK=1161976>. As reflected in this financial statement, PPL Energy Supply, LLC had total assets of approximately \$15 billion at December 31, 2007 and had operating revenues

1.1.5 Schedule

The U.S. EPR FSAR includes the following COL Item in Section 1.1.5:

A COL applicant that references the U.S. EPR design certification will provide the estimated schedules for completion of construction and commercial operation.

This COL Item is addressed as follows:

{The schedule milestones for BBNPP are:

(Editor's Note - new row after Bell Bend COLA Submitted:)
Start of Preconstruction November 2017

Milestone Schedule Dates

Activity	Milestone Date
Design Certification Submitted (AREVA NP)	December 2007
Reference COLA Submitted (Calvert Cliffs Unit 3)	March 2008
Bell Bend COLA Submitted	October 2008
Start of Construction*	November 2017
Construction Completed	June 2022
Commercial Operation Date (COD)	June 2023

* First safety-related concrete.

1.1.6 Format and Content

1.1.6.1 Regulatory Guide 1.206

This FSAR follows the U.S. EPR FSAR organization and numbering. The U.S. EPR FSAR was written in accordance with the format and content of Regulatory Guide 1.206, (NRC, 2007). This FSAR provides departures and supplemental information from the standard U.S. EPR design that is unique to the {BBNPP} project. If the information provided in the U.S. EPR FSAR sufficiently addresses the Regulatory Guide 1.206 content for {BBNPP}, this FSAR will state "No departures or supplements" at the highest section level where such a statement can be made.

In addition, this FSAR may add a final section or subsection (when necessary) for references made within this document. References will be provided if they are used in this FSAR even if they were identified within the U.S. EPR FSAR.

1.1.6.2 Standard Review Plan

No departures or supplements.

1.1.6.3 Text, Tables and Figures

Tables and figures are identified by the section or subsection in which they appear and are numbered sequentially. For example, Table 1.1-1 and Figure 1.1-1 would be the first table and figure appearing in Section 1.1. Figures consist of diagrams, plots, pictures, graphs or other illustrations. Tables and figures are located at the end of the applicable section (X.Y) immediately following the text.

1.1.6.4 Numbering of Pages

Pages are numbered sequentially within each chapter.

1.2.6 Proposed Action and Constraints

The proposed action is to construct and operate a new nuclear power unit on the BBNPP site. The NRC 10 CFR 52 (CFR, 2007b) licensing process will be followed to obtain a combined license. At the time of application submittal, there are no constraints on the review process. Numerous other permits and approvals are required from various Federal, State and local agencies as discussed in Section 1.3. These actions will require public meetings and hearings, as required, to obtain the necessary approvals to proceed with construction and operation of the new unit. Constraints may be placed on the proposed action (e.g., limiting groundwater appropriation on site) as the various agency reviews and approvals are processed and issued.

Environmental issues are evaluated using a three-tier standard of significance - SMALL, MODERATE, or LARGE. The definitions of the three significance levels are defined in Footnote 3 of Table B-1 of 10 CFR 51 (CFR, 2007c) as follows:

SMALL: Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE: Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE: Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

1.2.7 Major Activity Start and Completion Dates

The following major activities are scheduled:

	1.	Submit Design Certification Application for the U.S. EPR	December 2007	
	2.	Submit Reference Plant (CCNPP Unit 3) COLA	March 2008	
	3.	Submit COL Application for BBNPP	October 2008	
5.	→	4. Start of Construction*	November 2017	← 2019
6.	→	5. Construction Completed	June 2022	← 2024
7.	→	6. Commercial Operation	June 2023	← 2025

* First safety-related concrete.

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Status Of Reviews, Approvals and Consultations

Table 1.3-1 — Federal, State and Local Authorizations
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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
U.S. Nuclear Regulatory Commission (USNRC)	10 Code of Federal Regulations (CFR) 40	Source Material License	--(a)	--(a)	Possession, use and transfer of source material	April 2020
USNRC	Atomic Energy Act of 1954 (AEA), 10 CFR 51; 10 CFR 52.89	Environmental Impact Statement (EIS) and Record of Decision	--(a)	--(a)	Site approval for construction and operation of a nuclear power station as part of an application for a combined license (COL)	Included in COL process 2022
USNRC	10 CFR 52, Subpart C	COL	--(a)	--(a)	Combined license for a nuclear power station	Complete
USNRC	10 CFR 70	Special Nuclear Material License	--(a)	--(a)	Possession, delivery, receipt, use, transfer of fuel	May 2020 2022
USNRC	10 CFR 30	By-Product Material License	--(a)	--(a)	Production, transfer, receipt, acquisition, ownership, possession of nuclear byproduct materials	March 2021 2023
Federal Aviation Administration (FAA)	49 United States Code (USC) 44718, 14 CFR 77.13	Notice of Proposed Construction or Alteration - Construction Cranes	--(a)	--(a)	Construction of an object which has the potential to affect navigable airspace (> 200 ft) or within 20,000 ft of an airport	July 2018 2020
FAA	49 United States Code (USC) 44718, 14 CFR 77.13	Notice of Proposed Construction or Alteration - Facility	--(a)	--(a)	Construction of an object which has the potential to affect navigable airspace (> 200 ft) or within 20,000 ft of an airport	May 2020 2022

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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
PADEP	25 PA Code 217	State Radioactive Materials License	--(a)	--(a)	Possession, use, acquisition, ownership of radioactive materials not regulated by the NRC	August 2020 2022
PADEP	25 PA Code 266 Subpart N	Conditional Exemption for Low-Level Mixed Waste Storage	--(a)	--(a)	Exemption from hazardous waste handling requirements for low-level waste	June 2021 2023
US Army Corps of Engineers (USACE)	Federal Clean Water Act, Sec. 404; 33 CFR 322-323; Rivers and Harbors Act, 33 USC 403, Section 10 316(a) and 316(b) of Clean Water Act	Individual Permit	--(a)	--(a)	Excavation, dredging, and/or disposal of dredged material in navigable waters; filling of waters of U.S. Needed for construction/modification of the intake and discharge structure, and any filling of Waters of the U.S.	Complete
U.S. Environmental Protection Agency (USEPA), Pennsylvania Department of Environmental Protection	40 CFR 112, Subparts A -C, 25 PA Code 245	Spill Prevention, Control, and Countermeasure Plan (SPCC Plan)	--(a)	--(a)	Onsite oil storage >1,320 gals (combined), >660 (single), or >42,000 gals (underground)	July 2016 2018
USEPA, Pennsylvania (PA) Department of Labor and Industry	Superfund Amendments and Reauthorization Act of 1986 (SARA) Title 3/ Emergency Planning and Community Right to Know Sections 311-312/ Toxic Chemical Release Inventory Section 313	Chemicals subject to Reporting Requirements	--(a)	--(a)	Use and storage of hazardous chemicals onsite.	2020 March 2018 for first report; annually thereafter

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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
USEPA	40 CFR 262.12	Hazardous Waste Generator Registration (USEPA Identification Number)	—(a)	—(a)	Generation and storage of hazardous waste for <90 days	October 2015 ↑ 2017
U.S. Fish and Wildlife Services (USFWS)	Endangered Species Act (ESA), Section 7 (16 USC 35); 50 CFR 402	Consultation regarding potential to adversely impact protected species (non-marine species) and critical habitats	—(a)	—(a)	Identification of protected species and critical habitats onsite and in the vicinity, assessment of project construction and/or operation impacts, and concurrence on appropriate mitigation.	Ongoing
State Historic Preservation Office (SHPO)/ PA Historical and Museum Commission	National Historic Preservation Act (NHPA) Section 106; 36 CFR 800	Cultural Resources Review and Consultation	—(a)	—(a)	Identification, description, and evaluation of cultural resources on and in the site vicinity with the potential to be impacted by plant construction and/or operations. Concurrence on appropriate mitigation.	Complete
Susquehanna River Basin Commission (SRBC)	18 CFR Parts 803-808 Article 3 Section 310; 25 PA Code Chapter 105	Surface- and Groundwater Withdrawal and Construction and Operation Consumptive Use Approvals	—(a)	—(a)	Water withdrawal >100,000 gpd or consumptive use >20,000 gpd. Covers groundwater withdrawal as well as withdrawal from the Susquehanna River, and PA American Water Company	Complete

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No changes this page

Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
PA Fish and Boat Commission	Section 2305 of the Fish and Boat Code	PA Threatened and Endangered Species Project Natural Diversity Index (PNDI) search;	--(a)	--(a)	Potential impact on State endangered, threatened and candidate aquatic species onsite and in the vicinity, assessment of project construction and/or operation impacts, and concurrence on appropriate mitigation	Ongoing Every 2 years until COL issued
PA Department of Conservation and Natural Resources (PA DCNR)	17 PA Code Chapter 45	PA Threatened and Endangered Species Project Natural Diversity Index (PNDI) search	--(a)	--(a)	Potential impact on State plants that are rare, threatened or endangered onsite and in the vicinity, assessment of project construction and/or operation impacts, and concurrence on appropriate mitigation	Ongoing Every 2 years until COL issued
PA Game Commission	58 PA Code Chapter 133	PA Threatened and Endangered Species Project Natural Diversity Index (PNDI) search	--(a)	--(a)	Potential impact on State wildlife species that are rare, threatened or endangered onsite and in the vicinity, assessment of project construction and/or operation impacts, and concurrence on appropriate mitigation	Ongoing Every 2 years until COL issued
PA Department of Environmental Protection (PADEP)	Federal Clean Water Act, 33 USC 1251 et seq.; 25 PA Code Chapter 93	Section 401 Water Quality Certification	--(a)	--(a)	Compliance with state water quality standards	Complete

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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
PADEP	40 CFR 122.29 25 Pa Code 91	Water Quality Management Part II Permit Application for Industrial Wastewater Facilities.	—(a)	—(a)	Construction of industrial wastewater treatment facilities and intake structure	February 2017 ↑ 2019
PADEP	Federal Clean Water Act, Section 402; 33 USC 1251 et seq.; Section 316(a) of Clean Water Act; 25 PA Code Chapter 92	National Pollution Discharge Elimination System (NPDES) Permit	—(a)	—(a)	Discharge of industrial wastewater and stormwater during operation to surface water	December 2017 ↑ 2019
PA DEP/ Luzerne County	25 PA Code Chapters 92, 93 and 102	NPDES Individual Permit for Discharge of Stormwater Associated with Construction Activities and Post-Construction Erosion and Sediment Management	—(a)	—(a)	Discharge of stormwater during construction, erosion and sediment control during construction and post-construction, and post-construction stormwater management	Complete ↓ 2017
PA DEP/ Luzerne County	25 PA Code Section 287, 291	Registration as a Generator of Residual Waste	—(a)	—(a)	Onsite disposal of land-clearing and construction debris	December 2015
FEMA/Salem Township	Title 44, Emergency Management and Assistance	Floodplain Development Conditional Letter of Map Revision	—(a)	—(a)	Construction in 100-year floodplain.	Complete
PADEP	25 PA Code Section 105.15	Environmental impact assessment to wetlands, fisheries, parks, cultural and historical resources, state game lands, water quality and recreation	—(a)	—(a)	Construction and Altering Wetlands and Waterways	Complete

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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
PADEP	25 PA Code Section 245	Storage Tank Registration and Permitting	—(a)	—(a)	Storage of oil in above ground storage tanks >21,000 gal combined of petroleum or hazardous substances and/or >1,000 gal of used oil; storing a regulated substance in underground tanks >250 gals	2018 Construction: April 2016 Operation: May 2017 2019 2024
PADEP	25 PA Code Ch. 252	Environmental Laboratory Wastewater Certification	—(a)	—(a)	Laboratory accreditation for analysis of wastewater	June 2022 2023
PADEP	25 PA Code Ch. 110 Act 220	Water Use Registration	—(a)	—(a)	Registration for withdrawal of >10,000 gallons per day of surface water	May 2021 2018
PADEP	25 PA Code Section 264a	Registration for Storage of Hazardous or Mixed Waste, Construction and Operational Phases	—(a)	—(a)	Generation and storage of hazardous waste	Construction: April 2016 Operation: July 2017 2019
PADEP	40 CFR 70; 25 PA Code Chapter 127	State Air Permit to Construct - Construction Phase	—(a)	—(a)	Construction of construction phase air pollutant emission sources	Complete 2024
PADEP	40 CFR 52.21; 25 PA Code Chapter 122	Prevention of Significant Deterioration (PSD) - Operational Phase	—(a)	—(a)	Construction of major stationary sources of attainment pollutants for operational phase facilities.	March 2022 2024
PADEP	25 PA Code Chapter 122	New Source Review (NSR) - Operational Phase	—(a)	—(a)	Construction of major stationary sources of attainment pollutants for operational phase facilities.	March 2022

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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
PADEP	40 CFR 70; 25 PA Chapter 127	Title V Operating Permit	—(a)	—(a)	Operation of facility with major stationary sources of air emissions	March 2022 2024
PA Department of Labor	37 PA Code Section 11	Storage Tank Registration and Permitting, Construction and Operation	—(a)	—(a)	Storage of flammable liquids in above ground storage tanks > 30 gal I	Construction: April 2016 Operation: May 2017 2019
Pennsylvania Department of Transportation (Penn DOT)	49 CFR 171-180; 67 PA Code Chapter 403	Transport Permit for Hazardous Waste	—(a)	—(a)	Shipment of low level radwaste or hazardous waste	June 2022 2018
Penn DOT	67 PA Code Chapter 441	Permit for Access to Highways	—(a)	—(a)	Access to and occupancy of highways by driveways and local roads	October 2010 to January 2016 2020
Penn DOT	Aviation Code, Act of October 10, 1984, PL 837 No. 164, 67 PA Code 479.4	Notice of Proposed Construction or Alteration - Construction Cranes	—(a)	—(a)	Construction of an object which has the potential to affect navigable airspace (>200 ft) or within 20,000 ft of an airport	July 2018 2022
Penn DOT	Aviation Code, Act of October 10, 1984, PL 837 No. 164, 67 PA Code 479.4	Notice of Proposed Construction or Alteration - Facility	—(a)	—(a)	Construction of an object which has the potential to affect navigable airspace (>200 ft) or within 20,000 ft of an airport	May 2020 2019
Penn DOT	67 PA Code Section 459	Utility Construction on or above State Roads	—(a)	—(a)	Power line and service pipe installation under Rte. 11 to CWIS	January 2017
PA Emergency Management Agency	FEMA May 24, 2010 letter	State Emergency Planning	—(a)	—(a)	Need letter of Agreement Nuclear Emergency Plan	March 2021 2023

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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
Luzerne County Emergency Planning Commission	SARA Title III; 10 CFR 50.47; FEMA May 24, 2010 letter	County Emergency Planning Committee	--(a)	--(a)	Need Letter of Agreement for nuclear emergency plan. Also need to meet SARA Title III requirements	March 2021 2023 ↑
Columbia County Emergency Planning Commission	10 CFR 50.47; FEMA May 24, 2010 letter	County Emergency Planning Committee	--(a)	--(a)	Need Letter of Agreement for nuclear emergency plan.	March 2021 2023 ↑
Salem Township	10 CFR 50.47; FEMA May 24, 2010 letter	Local Emergency Planning Committee	--(a)	--(a)	Need Letter of Agreement for nuclear emergency plan.	March 2021 2023 ↑
Salem Township	Zoning Ordinance Section 1302, Ordinance No. 2011-03	Zoning Permit	--(a)	--(a)	Need to rezone property for heavy industrial use	Complete
Salem Township	Zoning Ordinance Section 1302, Ordinance No. 2011-03	Conditional Use Approval, Lot Subdivision Approval	--(a)	--(a)	Conditional Use Approval for Electric Power Generating Plants	Complete
Salem Township/Luzerne County/ PADEP	Subdivision and Land Development Ordinance Section 501	Preliminary and Final Land Development Plan Approval	--(a)	--(a)	Construction of buildings and other structures	Preliminary: November 2015 Final: December 2015 2017 ↑
Salem Township/Luzerne County/PennDOT	Subdivision and Land Development Ordinance Section 600	Highway Occupancy Permit for Construction Entrances and Temporary Roads	--(a)	--(a)	Need to obtain a permit to establish construction entrances from local roads and to establish temporary roads during construction	April 2015 2017 ↑
Salem Township	Zoning Ordinance Section 202 and 1303	Permit for Structure Demolition or Move	--(a)	--(a)	Demolish certain structures or move certain structures	April 2016 2018 ↑

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Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
Salem Township	Subdivision Land and Development Ordinance; PA Act 537, Sewage Facilities of 1966	Sewer Permit	--(a)	--(a)	Need to tie into Municipal Sewer System	March 2015 2017
Salem Township	Zoning Ordinance Section 1303	Construction Permit	--(a)	--(a)	Permit to construct buildings and structures not within the scope of the NRC	September 2015
Salem Township	Zoning Ordinance Section 1303	Use and Occupancy Permit	--(a)	--(a)	Use and occupancy of buildings	November 2019 2021
Tennessee Department of Environment and Conservation - Division of Radiological Health	TN Department of Environment and Conservation, Rule 1200-2-10.32	Tennessee Radioactive License-for Delivery	--(a)	--(a)	Transportation of radioactive waste into the State of Tennessee (below regulatory limits material)	June 2022 2024
State of Utah Department of Environmental Quality - Division of Radiological Control	Utah Department of Environmental Quality, Radiation Control Rules R313.26	General Site Access Permit	--(a)	--(a)	Transportation of radioactive waste into the State of Utah	June 2022

Notes:

(a) Data not available. Application for permits will be made before the beginning of construction, as required.

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8.0 NEED FOR POWER

This chapter provides an assessment of the need for electric power in support of the Combined License Application (COLA) for the proposed Bell Bend Nuclear Power Plant (BBNPP). Also provided is a description of the existing regional electric power system, current and future demand for electricity, and present and planned power supplies.

This chapter supports the need for power generated by the BBNPP. The proposed U.S. Evolutionary Power Reactor (EPR) for BBNPP will have a rated design net electrical output of approximately 1,600 megawatts electric (MWe). The EPR will be constructed at the Bell Bend site and is estimated to begin commercial operation in June 2023. The BBNPP will be a merchant facility owned by PPL Bell Bend, LLC (PPL) providing baseload energy for the electricity market.

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The geographic scope or primary market area for the BBNPP has been generally defined as the eastern part of the PJM Interconnection, LLC (PJM) "classic" market area (Figure 8.0.1-1). PJM is the Regional Transmission Organization (RTO) that serves to maintain the reliability of the bulk electricity power supply system for 13 states and the District of Columbia. PJM serves approximately 51 million people and includes the major U.S. load centers from the western border of Illinois to the Atlantic coast including the metropolitan areas in and around Baltimore, Chicago, Columbus, Dayton, Newark and northern New Jersey, Norfolk, Philadelphia, Pittsburgh, Richmond, and Washington, D.C.

The eastern part of the PJM classic market area is a subset of the entire PJM area and is considered the Region of Interest (ROI) and primary market area for the BBNPP. The ROI/primary market area includes parts of the states of Pennsylvania, New Jersey, Delaware, Maryland, and Virginia. This area is closely approximated by the service territories for the electric delivery companies identified and depicted in Figure 8.0.1-1. For PPL and the corporation's marketing entity, PPL EnergyPlus, key drivers for selecting this defined ROI/primary market area include:

- ◆ Fit with PPL EnergyPlus Marketing Plan – Assets and locations in the ROI/primary market area fit well with the PPL EnergyPlus marketing plan.
- ◆ Regulatory Environment – A thorough understanding of state regulatory issues is one of the most important considerations in developing a new generating facility. States within the ROI/primary market area, particularly Pennsylvania, are well understood from a regulatory perspective.
- ◆ Market Operations, RTO, independent system operator (ISO) – PJM is a mature, well functioning market that can readily fulfill PPL Corporation's marketing objectives.
- ◆ Electric Transmission Concerns – The eastern part of the PJM classic market area provides access to several key market areas and is not subject to problems historically experienced by other regions in moving power to these markets.
- ◆ Probability of Success/Competitive Advantages – Assets for which there is expected to be less competition and where PPL has a competitive advantage rank highest. Examples of such advantages include negotiated deals, partially constructed assets, assets in which PPL has some involvement, and assets in markets that PPL understands thoroughly. The eastern part of the PJM classic market area, particularly where PPL Corporation already has assets, scores high in these considerations.

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Table 1.3-1 Federal, State and Local Authorizations

Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
USNRC	10 CFR 50.54, 52.17	Emergency Response Plan	-(a)	-(a)	Construction Phase Emergency Response Plan	Included in the COL process
USNRC	10 CFR 50.47	Emergency Response Plan	-(a)	-(a)	Operation Phase Emergency Response Plan	Included in the COL process
USEPA	40 CFR 68	Risk Management Plan	-(a)	-(a)	Storage of Chemicals listed in Section 112(r) of the Clean Air Act in quantities above threshold	January 2015 ← 2017
Federal Emergency Management Agency (FEMA)	Title 44, Emergency Management and Assistance	Floodplain Development Conditional Letter of Map Revision	-(a)	-(a)	Verification from FEMA/FEMA-approved local authority that floodplain analyses are correct for constructed plant – North Branch Susquehanna River	March 2021 ← 2023
FEMA	Title 44, Emergency Management and Assistance	Floodplain Development Conditional Letter of Map Revision	-(a)	-(a)	Verification from FEMA/FEMA-approved local authority that floodplain analyses are correct for constructed plant – Walker Run	September 2017 ← 2019

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Table 1.3-1 Federal, State and Local Authorizations (continued)

Agency	Authority	Requirement	License/Permit No.	Expiration Date	Activity Covered	Anticipated Application Submittal Date
PADEP	<u>25 PA Code Article III Ch 121-145</u>	<u>Air Quality State Permit to Operate for Emission Sources</u>	<u>-(a)</u>	<u>-(a)</u>	<u>Operation-Phase Emission Sources for Diesel Generators</u>	<u>June 2016</u>
U.S. Dept. of Energy (USDOE)	<u>10 CFR 961.11</u>	<u>Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste</u>	<u>DE-CR01-09RW09016</u>	<u>NA</u>	<u>Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste</u>	<u>Complete</u>
U.S. Dept. of Transportation (USDOT)	<u>49 CFR 107, Subpart G</u>	<u>Certification of Registration</u>	<u>-(b)</u>	<u>-(b)</u>	<u>Transportation of Hazardous Materials</u>	<u>-(b)</u>

Notes:

(b) This activity will be performed by an established carrier in accordance with the carrier's Certificate of Registration

2018