

BellBendEnveRAIPEm Resource

From: Terry, Tomeka
Sent: Wednesday, February 12, 2014 9:39 PM
To: Rocco R. Sgarro (rrsgarro@pplweb.com); Kirkwood, Jon K (jon.kirkwood@unistarnuclear.com)
Cc: Kropp, Roy K (Roy.Kropp@pnnl.gov); Kuntzleman, Nancy; Imboden, Stacey; Anderson, Thomas L (Thomas.L.Anderson@pnnl.gov); Mussatti, Daniel; Anderson, David M (DMA@pnnl.gov); Haque, Mohammad; Meyer, Philip D (Philip.Meyer@pnnl.gov) (Philip.Meyer@pnnl.gov); Doub, Peyton; Becker, James M (james.becker@pnnl.gov); Mcdowell, Bruce K (Bruce.Mcdowell@pnnl.gov); 'Leigh, Kimberly D'; Quinn-Willingham, Laura; BellBendEnveRAIPEm Resource
Subject: Bell Bend Final RAIs
Attachments: Final RAIs ENV-28.pdf

Rocky,

Attached is the final RAI ENV-28 for the Bell Bend COL application. The ENV-28 RAI is related to aquatic and terrestrial ecology, need of power, alternative sites, and hydrology.

The NRC assumes technically correct and complete responses within 30 days of receipt of the final RAIs. For any RAIs that cannot be responded to within 30 days, it is expected that a date for receipt of this information will be provided to the staff within the 30-day period so that the staff can access how this information might impact the schedule. Please contact me if you have any questions.

Thanks!

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From: Terry, Tomeka

Created By: Tomeka.Terry@nrc.gov

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Request for Additional Information No. 7314

Issue Date: 2/12/2014

Application Title: Bell Bend Environmental Review Docket Number 52-039

Operating Company: PPL Bell Bend LLC.

Docket No. 52-039

Review Section: EIS AE - Ecology/Aquatic

Application Section: Part 3 – Environmental Report

QUESTIONS

ESRP Section 4.3.2 directs the staff's description, quantification, and assessment of the impacts of construction of the proposed facilities on the aquatic ecosystem. PADEP Water Obstruction and Encroachment Permit, E40-720 (ML13161A023) identifies bridge removal as an impact associated with Joint Permit Application (JPA) Impacts A (Walker Run) and B (Unnamed Tributary 1). The JPA and ER Rev 4 do not describe the bridge removal process and the associated potential -impacts. Describe the bridge removal process associated with JPA Impacts A (Walker Run) and B (Unnamed Tributary 1). Characterize the potential impacts to aquatic resources from the bridge removal and describe any steps that would be taken to minimize those impacts.

Request for Additional Information No. 7318

Issue Date: 2/12/2014

Application Title: Bell Bend Environmental Review Docket Number 52-039

Operating Company: PPL Bell Bend LLC.

Docket No. 52-039

Review Section: EIS ALT/S - Alternatives / Alternative Sites

Application Section: Part 3 – Environmental Report

QUESTIONS

ESRP 9.3 directs that staff evaluate the viability of alternatives sites using several acceptability criteria among which is assurance that consumptive use of water should not cause significant adverse effects on other users. Additionally, ESRP 9.3 suggests that a site is unsuitable if it presents unacceptable conflicts with land-use planning or other restrictions established by State, county, or local governments. In its December 4, 2012 response (BNP-2102-281) and supplemental filings, to RAI Env-19 Water Availability dated November 5, 2012, PPL addressed concerns expressed in the RAI for meeting consumptive water requirements during periods of low flow at the Bell Bend Site. Since the alternatives sites would also be dependent upon the Susquehanna River and its tributaries in this same region as the Bell Bend site, please address how consumptive water requirements would be met at the Humboldt, Seedco, and Montour sites. The NRC staff needs to understand how these three sites would meet the NRC Regulatory Guide 4.7, *General Site Suitability Criteria for Nuclear Power Stations*, criterion of reasonable assurance that required permits could be obtained from the SRBC for consumptive water use of 28 million gallons of water per day. As stated on page 4.7-13 of RG 4.7, "To evaluate the suitability of sites, there should be reasonable assurance that permits for consumptive use of water in the quantities needed for a nuclear power plant of the stated approximate capacity and type of cooling system can be obtained by the applicant from the appropriate State, local, or regional agency".

Request for Additional Information No. 7324

Issue Date: 2/12/2014

Application Title: Bell Bend Environmental Review Docket Number 52-039

Operating Company: PPL Bell Bend LLC.

Docket No. 52-039

Review Section: EIS AE - Ecology/Aquatic

Application Section: Part 3- Environmental Report

QUESTIONS

ESRP Sections 2.4.1 and 2.4.2 direct the staff's description of the terrestrial and aquatic environments and biota at and near the site and other areas likely to be affected by the construction, maintenance, or operation of the proposed project. ER Rev 4, p. 2-8 describes the Wetlands Natural Area as having "riverine forest, marsh, swamp, and vernal pools". The Pennsylvania Natural Heritage Program lists Herbaceous Vernal Pool as an ecologically sensitive community occurring state-wide, including in Luzerne County. In general, vernal pools may be characterized by seasonally fluctuating water levels, and may dry out completely in the summer. Thus, vernal pools often lack mature fish populations and may provide critical breeding habitat for amphibians. The Wetlands Natural Area, and specifically the vernal pools, was not characterized in ER Rev 4 nor in the background biota field survey reports. The Riverlands Wetland Mitigation Design Report (Joint Permit Application Rev. 1) indicates that mitigation is expected to affect surface water hydrology in the Wetlands Natural Area, and thus could adversely affect the hydrology and functionality of the vernal pools. The Riverlands Wetland Mitigation Design Report also indicates that one of the mitigation objectives is to maintain a desired surface water elevation in the Wetlands Natural Area. Maintenance of a stable surface water elevation could eliminate fluctuating water levels and the functionality of the vernal pools. Provide what is known about the hydrology and ecology of the vernal pools. Discuss what provisions of the mitigation project would maintain the historic hydrology and functionality of the vernal pools.

Request for Additional Information No. 7332

Issue Date: 2/12/2014

Application Title: Bell Bend Environmental Review Docket Number 52-039

Operating Company: PPL Bell Bend LLC.

Docket No. 52-039

Review Section: EIS HYD/G - Hydrology/Ground Water

Application Section: Part 3 – Environmental Report

QUESTIONS

ESRP Section 2.3.2 directs the staff's description of surface water and groundwater uses and users that could be affected by the proposed project. For groundwater uses, this description includes locations and depths of the wells, identification of the aquifers from which water is withdrawn, and the average withdrawal rates. For surface water, non-consumptive water uses must be included in the description. The ER does not adequately describe water uses for nearby wells and surface water bodies. Provide groundwater use information for the wells located within approximately one mile of the BBNPP site, as shown in ER Figure 2.3-93, including the domestic well shown located near the pond on the property to the south of the site. Identify any non-consumptive uses for the surface water bodies located on the property to the south of the BBNPP site.

Request for Additional Information No. 7334

Issue Date: 2/12/2014

Application Title: Bell Bend Environmental Review Docket Number 52-039

Operating Company: PPL Bell Bend LLC.

Docket No. 52-039

Review Section: EIS NFP - Need for Power

Application Section: Part 3 – Environmental Report

QUESTIONS

ESRP Section 8.2 and ISG 26 direct the staff's review of electric power demand in the need for power analysis for the EIS. Chapter 8 of ER Rev 4 presents analysis of demand conditions as they existed in 2007 and subsequent RAI responses do not address the following specific issues. 'The NRC Staff have observed that recent demand forecasts are trending below the levels projected by Pennsylvania New Jersey Maryland Interconnection, LLC (PJM) and others prior to the national economic downturn. This is true in the BBNPP region of influence presented in the most recent ER revision and earlier RAI responses. For example, for the BBNPP region presented in the most recent ER, the 2007 PJM (subset of PJM Mid-Atlantic region that includes the market areas in ER Figure 8.0.1-1) forecast projected 60 GW of peak demand by 2019. However, the 2013 forecast delays that demand threshold until beyond the projection period (2028). This indicates that conclusions in the current ER and related subsequent RAI responses may rely on projected demand levels that have since been extended more than 10 years out in time. Please provide discussion of PPL's interpretation of current demand forecasts and indicate how the planned BBNPP capacity will address needs as they will exist in the 2023-2025 period. Discuss any reasoning that would temper PJM's analysis of current forecasted demand projected for the BBNPP ROI. Please provide discussion of PPL's interpretation of current demand forecasts and indicate how the planned BBNPP capacity will address needs as they will exist in the 2023-2025 period. Discuss any reasoning that would temper PJM's analysis of current forecasted demand projected for the BBNPP ROI. Discuss parallel forecasts of supply that would affect PPL's need assessment in light of newer, lower, projected demand.