

## BellBendEnveRAIPEm Resource

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**From:** Quinn-Willingham, Laura  
**Sent:** Wednesday, September 05, 2012 9:34 PM  
**To:** 'Sgarro, Rocco R'  
**Cc:** Hsia, Anthony; Mcdowell, Bruce K; 'Leigh, Kimberly D'; 'Rishel, Jeremy P'; Imboden, Stacey; Mazaika, Michael; Goldin, Laura; BellBendEnveRAIPEm Resource  
**Subject:** Bell Bend Final RAIS for Meteorology  
**Attachments:** ENV-09 RAI\_6776\_MET.pdf

Please find attached RAI Env-07 for the Bell Bend COL application. The ENV-07 RAI is an aggregate of the draft meteorology RAIs (MET-2, MET-4, and MET-5) that were provided to you on August 13, 2012 as part of a complete table of draft RAIs. There was no request for a clarification discussion of these draft RAIs. MET-5 was updated to reflect the submittal of BNP-2012-197. No other changes are necessary; hence we are issuing this RAI as final.

The schedule we have established to the review of your application assumes technically correct and complete responses within 30 calendar days of receipt of RAIs. For any RAIs that cannot be responded to within 30 calendar 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 assess how this information might impact the schedule.

Please contact me if you have any questions.

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**Email Number:** 12

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**Subject:** Bell Bend Final RAIS for Meteorology  
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**Received Date:** 9/5/2012 9:34:17 PM  
**From:** Quinn-Willingham, Laura

**Created By:** Laura.Quinn-Willingham@nrc.gov

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**Request for Additional Information ENV-09**

Issue Date: 9/5/2012

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

Operating Company: PPL Bell Bend LLC.

Docket No. 52-039

Review Section: EIS 2.9 - Meteorology and Air Quality

Application Section:

QUESTIONS

EIS 2.9-1

Resolve the apparent disagreement in the distance to the Exclusion Area Boundary (EAB) and the associated 50th percentile X/Q presented in Chapter 2.7.6.2 and Chapter 7.1 of the ER (Revision 3).

Supplemental Information:

To be consistent with ESRP 2.7, the NRC staff has a confirmatory role in evaluating relative concentration (X/Q) for estimating dose in design basis accidents (DBAs).

A partial response was submitted on June 7, 2012 (BNP-2012-139, MET-02 ML12166A271), which included the AEOLUS3 input/output files used to estimate the BBNPP site-specific 50th percentile X/Q. However, the response did not clarify the apparent disagreement in the distance to the EAB and the associated 50th percentile X/Q presented in Chapter 2.7.6.2 and Chapter 7.1 of the ER.

This was Info Need MET-2 in the draft RAI table.

Acceptance Criteria:

ESRP Section 2.7

EIS 2.9-2

Table 6.4-3 of the ER (Revision 3) lists the distance and height to potential nearby obstructions for the proposed BBNPP meteorological tower location. Based on the data in Table 6.4-3, treelines to the north and south are within five obstruction heights of the BBNPP meteorological tower and therefore they have the potential to affect tower measurements. A July 12, 2012 submittal (BNP-2012-167, MET-04) discusses possible nearby tower obstructions and also provides estimates of distances and heights to the nearby treelines. The NRC staff notes, however, that the distances and heights provided in the ER and the July 12, 2012 submittal are inconsistent. Which estimates are correct? Provide justification as to why treeline impacts on the BBNPP meteorological measurements are expected to be minimal.

Supplemental Information:

ESRP 2.7 and 6.4 states that for "no discernible flow on measurements, towers should be at least ten obstruction heights away from major obstructions. For towers located more than five obstruction heights away from major obstructions, the influence should be minimal. Tower locations within five obstruction heights should be analyzed on a case-by-case basis."

Based on Table 6.4-3 of the ER, the proposed BBNPP meteorological tower is within five obstruction heights of treelines to the north and south of the tower location. A July 12, 2012 submittal (BNP-2012-167, MET-04) also provides estimates of distances and heights to the nearby treelines, but the values are inconsistent with the ER.

This was Info Need MET-4 in the draft RAI table.

Acceptance Criteria:  
ESRP Section 2.7 and 6.4.1

EIS 2.9-3

RAI Reply 101 and 106 in BNP-2012-197 dated August 20, 2012 (ML122360478) provided revisions of Section 2.7 of the ER to reflect planned changes to the long-term relative concentration (X/Q) and deposition (D/Q) values for normal radioactive effluent releases to the atmosphere. Provide the model input/output files used to estimate the long-term X/Q and D/Q values.

Supplemental Information:

To be consistent with ESRP 2.7, the NRC staff has a confirmatory role in evaluating X/Q and D/Q estimates for routine releases of radioactive effluent to the atmosphere. NRC staff will perform independent calculations for the BBNPP site and compare the results of its calculations to the applicant's results reported in the ER. RAI Reply 101 and 106 in BNP-2012-197 provided revisions to the values in the ER. Therefore, provide all model input/output files so confirmatory calculations can be performed.

This was Info Need MET-5 in the draft RAI table, which was a new Info Need from the site audit.

Acceptance Criteria:  
ESRP Section 2.7