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August 29, 2012

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

**BELL BEND NUCLEAR POWER PLANT
RESPONSE TO DRAFT ER RAIs,
THIRD SUBMITTAL
BNP-2012-208 Docket No. 52-039**

- References:
- 1) Laura Quinn-Willingham (NRC) to R. R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA ER, Draft RAIs for the Bell Bend Environmental Review, email dated August 13, 2012
 - 2) Laura Quinn-Willingham (NRC) to R. R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA ER, Revised RAIs - TE, email dated August 20, 2012

The purpose of this letter is to respond to certain Draft Requests for Additional Information (RAIs) provided to PPL by NRC in Reference 1 and Reference 2. Enclosure 1 to this letter provides PPL Bell Bend, LLC's (PPL) responses to NRC Draft RAIs as follows:

- ACC-5
- MET-2
- S/EJ-17
- ALT-7
- MET-4
- TE-37
- HY-1
- S/EJ-16

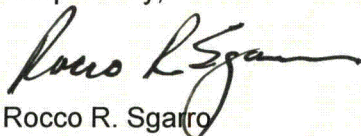
The information presented in ACC-5, ALT-7, HY-1, MET-2, and MET-4 require updates to the language in the Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA) Part 3, "Environmental Report," Rev. 3.0 to be consistent with information provided in these NFIs. The revised COLA content will be included in a future revision of the BBNPP COLA. The future revision of the COLA is the only new regulatory commitment in this letter.

Should you have questions or need additional information, please contact the undersigned at 610.774.7552.

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

Executed on August 29, 2012.

Respectfully,


Rocco R. Sgarro

RRS/kw

Enclosures: 1) Draft RAI Responses

D102
NRD

cc: (w/ Enclosure)

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Enclosure 1

Draft RAI Responses

Accidents (ACC)

Draft RAI ACC-05:**Question Summary:**

Provide in the Bell Bend COL environmental report (ER) an updated site-specific SAMDA averted cost using replacement power costs based on the expected capacity factor for the U.S. EPR reactor design.

Full Text:

ESRP Section 7.3 directs the staff to evaluate and independently confirm an applicant's severe accident mitigation design alternatives (SAMDA) analysis presented in the ER Section 7.3 that applies design and site specific information based on the guidance provided in NUREG/BR-0184. In response to SAMDA questions at the site audit, PPL provided in BNP-2012-167 (dated July 12, 2012 ML12214A589) the results of a sensitivity analysis to show there would not be any cost-benefit SAMDA even by using a 95% plant capacity factor, rather than 60% (the capacity factor that is the basis in NUREG/BR-0184). However, PPL concludes in BNP-2012-167 that "[n]o change is required to the BBNPP COLA as a result of this response." Therefore, the staff is requesting that PPL update the BBNPP ER with the results that are summarized in BNP-2012-167.

Response:

The Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA) Part 3 Environmental Report (ER) will be updated to include the results of the SAMDA sensitivity analysis as requested.

COLA Impact:

Section 7.3 of the BBNPP COLA ER will be updated in a future revision to incorporate the changes shown on the markup on the following page.

The percentage contributions of each hazards group are slightly different for the mean value CDF. Therefore, seismic risk based on the mean value CDF is assumed to be 28 percent of total mean value CDF. The resulting maximum benefit on the mean value CDF would be \$92,677.

7.3.3 Sensitivity Studies

Sensitivity cases were performed to investigate the sensitivity of certain parameters in the Bell Bend SAMDA analysis. A total of ~~five~~ ^{six} sensitivity benefit calculations were performed for both the point estimate and mean value CDF with 2008 replacement power costs. Below is a brief description of the sensitivity cases.

- ◆ The first case investigated the sensitivity of the base case to the discount rate by assuming a lower discount rate of three percent. The method to calculate the present value of replacement power for a single event is discussed in U.S. EPR DC ER (AREVA 2009).
- ◆ The second case investigated the sensitivity of the base case to the discount rate by assuming a lower discount rate of five percent.
- ◆ The third case investigated the sensitivity of the base case to the on-site dose estimates. For the base case analysis, an immediate and long-term on-site dose to plant personnel following a severe accident is 3,300 rem and 20,000 rem, respectively. Therefore, this sensitivity case used the recommended high estimate dose values of 14,000 rem and 30,000 rem for immediate and long term dose on-site respectively, as suggested in (NRC, 1997).
- ◆ The fourth case investigated the sensitivity of the base case to the total on-site cleanup cost. For the base case analysis, the total on-site cleanup cost following a severe accident is taken to be \$1,500,000. Therefore, this analysis assumed a high estimated on-site cleanup cost of \$2,000,000 as suggested in (NRC, 1997).
- ◆ The fifth case also investigated the sensitivity of the increase in the replacement power cost for the U.S. EPR design. This sensitivity case projected that the cost of replacement power would double between 2008 and 2015. This would result in electricity cost of 24 cents/kw-h in 2015 based upon the assumption that the cost of electricity in 2008 is 12 cents/kw-h. The inflation rate for this sensitivity case was calculated using the the method outlined in (AREVA, 2009).

Table 7.3-2 and Table 7.3-3 provide the calculated benefit for the point estimate and mean value CDF with 2008 replacement power cost sensitivity cases discussed above.

7.3.4 Results and Summary

A total of 167 SAMDA analysis if the replacement power costs were based on the 95% capacity factor stated in Section 3.4.1.3.1 of the Bell Bend ER (rather than the assumed 60%, as assumed in NUREG/BR-0184, from which the analysis was based). Using a capacity factor of 95%, the maximum benefit for Bell Bend exceeded the value reported in Section 7.3.2 of the BBNPP ER by about \$28,000 (point estimate core damage frequency, CDF) and by about \$30,000 (mean value CDF). These increased values do not change the findings contained in the Section 7.3.4 "Results and Summary" that no additional plant modifications are cost beneficial to implement due to the robust design of the U.S. EPR with respect to prevention and mitigation of severe accidents.

- ◆ Twenty-five SAMDA analysis either as suggested or as the intent of the SAMDA analysis performed.
- ◆ Sixty-nine SAMDA analysis either as suggested or as the intent of the SAMDA analysis performed.

Alternative Sites (ALT)

Draft RAI ALT-7:**Question Summary:**

Resolve the discrepancy between the statements in ER Section 9.3.1.2 that the Martins Creek site is the most favorable non-Susquehanna River basin alternative site even though in ER Table 9.3-10 the Wallenpaupack site in the Delaware River basin had a higher screening score.

Full Text:

ESRP Section 9.3 directs the staff's analysis and evaluation of alternatives to the applicant's proposed site for the construction and operation of a nuclear power plant. The scope of the review should include an analysis and evaluation of the region of interest, candidate sites and a reasonable number of proposed alternative sites identified by the applicant, and the methodology used by the applicant to identify these sites. ER Revision 3, page 9-60, claims Martins Creek as the most favorable non-Susquehanna River basin site, but ER Table 9.3-10 has a higher score for the Wallenpaupack site, which is also outside of the Susquehanna River basin.

Response:

The Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA) Part 3 Environmental Report (ER) Table 9.3-10 reflects the original analysis presented in the main body of PPL's Alternative Site Evaluation Report, Revision 2¹, which was based on the process described in ER Section 9.3.1. In response to questions from the U.S. Army Corps of Engineers (USACE), sensitivity analyses were subsequently performed that better reflected the objectives of the USACE review objectives, i.e., equal consideration of Public Interest Factors, and greater consideration of water availability. These analyses clearly identified that the Martins Creek site scored higher than the Wallenpaupack site (Alternative Sites Evaluation Report, Revision 2, Appendix F Cases 2, 3 and 4, May 2011.)

COLA Impact:

Pending the disposition of PPL's response to Draft RAI ALT-8, which determined the Martins Creek site to be unpermissible for other reasons, the BBNPP COLA ER Section 9.3.1.2 will be revised as follows in a future revision of the COLA as shown in the markup below.

¹ UniStar, 2011 Bell Bend Nuclear Power Plant Alternative Site Evaluation v. [2], UniStar Nuclear Energy, May 2011.

9.3.1.2

The criteria used to evaluate the *Candidate Sites* were drawn from a larger, more comprehensive set of criteria identified in Section 9.3 of NUREG-1555 (NRC, 2007) and the EPRI siting guide (EPRI, 2002). A weighting value was also applied at this step to each of the criteria (Appendix D, UniStar, 2011). The summarized totals from the underlying assessment (UniStar, 2011) are provided in Table 9.3-10. The three sites with the highest scores were selected for comparison as the *Alternative Sites*.

- ◆ Montour
- ◆ Humboldt
- ◆ Seedco

the USACE requested that the Alternative Site Evaluation (UniStar, 2011) scoring and weighting be modified in order to better align with the objectives of their review and with respect to Public Interest Factors and water availability. Additionally,

In 2010, because the three *Alternative Sites* were located within the Susquehanna River Basin along with the *Proposed Site*, the USEPA requested that an alternative site outside of the Susquehanna River Basin be considered in the federal National Environmental Policy Act (NEPA) analyses. ~~In response to that request, the Martins Creek site, the most favorable non-Susquehanna River Basin alternative, was added for consideration as a fourth *Alternative Site* in federal NEPA analyses by the NRC, U.S. Army Corps of Engineers, and/or USEPA.~~

These *Alternative Sites* were compared to the *Proposed Site* in the final step of the alternative site evaluation. The locations of the *Alternative Sites* and the *Proposed Site* are shown in Figure 9.3-15.

9.3.2 Proposed and Alternative Site Evaluation

Once the *Alternative Sites* were identified, the next step in the site evaluation process was to compare the *Alternative Sites* to the *Proposed Site* in a two part sequential test to determine whether an *Alternative Site* was (1) "Environmentally Preferred" and if so, (2) if it was "Obviously Superior" to the *Proposed Site*. ~~The *Alternative Sites* that were compared with the *Proposed Site* are as follows:~~

- ◆ Montour
- ◆ Humboldt
- ◆ Seedco
- ◆ Martin's Creek

Accordingly, several sensitivity cases were performed to reflect this input (Appendix F, UniStar, 2011). Although these cases did not result in a change in the top three sites determined in the original process, they did establish that the Martins Creek site was the most favorable non-Susquehanna River Basin alternative, and it was added for consideration as the fourth alternative site based on the agencies' request.

The *Alternative Sites* were compared to the *Proposed Site* based on information about the existing sites and the surrounding area, as well as existing environmental studies and Final Environmental Impact Statements issued by the Atomic Energy Commission and/or the U.S. Nuclear Regulatory Commission and other reconnaissance level information. This comparison is performed to determine whether any *Alternative Sites* were "Environmentally Preferred" to the *Proposed Site*.

Based on the alternative site evaluation (UniStar, 2011), none of the *Alternative Sites* were determined to be "Environmentally Preferred" to the *Proposed Site*. If any of the *Alternative Sites* is determined to be "Environmentally Preferred" to the *Proposed Site* then the evaluation would have continued to the second step of the process. The second step of the process would have used commercially based evaluation criteria to rank the *Proposed Site* and the

Hydrology (HY)

Draft RAI HY-1:**Question Summary**

Provide details of the placement and eventual disposition of the slurry wall that will be used for construction of the Essential Service Water Emergency Makeup System (ESWEMS) pond. Describe how the slurry wall will be perforated or otherwise made ineffective after construction of the pond, and how groundwater flow to streams, sloughs and wetlands would be affected by any remnants of the slurry wall.

Full Text

ESRP Section 4.2.1 directs the staff's identification, analysis, and description of hydrologic alterations resulting from proposed project construction and construction activities. 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. In ER Sections 2.3.2.2.11, 4.2.1.5 and 4.3.1.6, the applicant states that a slurry wall would be used during construction of the ESWEMS Pump House and Retention Pond to reduce dewatering needs and to protect nearby streams and wetlands. The applicant indicated during the May 2012 environmental site audit that the slurry wall would be perforated to allow a normal groundwater flow to be re-established. However, the ER makes no mention of this perforation, or how the remnants of the slurry wall might still affect the groundwater.

Response:

As described in The Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA) Part 3 Environmental Report (ER) Sections 2.3, 4.2, and 4.3, construction of a subsurface bentonite-mixture slurry wall is currently proposed in the vicinity of the ESWEMS Pump House and Retention Pond for the purposes of allowing the structure to be built under dry conditions. Use of a slurry wall in this location is proposed to prevent groundwater seepage into the ESWEMS Pump House and Retention Pond area during construction. The installation and use of this barrier to groundwater movement is a temporary need and is proposed to be decommissioned after construction, and the local groundwater flow characteristics restored to pre-construction conditions.

To render the slurry wall non-functional and restore normal groundwater flow, the slurry wall is currently planned to be perforated as required to allow groundwater to pass unrestricted through the remains of the subsurface wall.

To complete the perforation/decommissioning of the slurry wall several different potential methods are available. One of several potential methods described below, or a combination of these, will be selected for use. Options include:

- Option #1: Advancement of boreholes of appropriate diameter and spacing will be advanced via a horizontal drilling rig through the length and depth of the slurry wall, and will be backfilled via a tremie pipe delivering a coarse sand /water mixture. This backfill will prevent the borehole from closing due to bentonite swelling or movement, and will allow for continuous groundwater passage.

- Option #2: Drilling of boreholes as described above, and the subsequent injection of an expansive fluid which will fracture the wall.
- Option #3: Use of small charges of explosives at strategic locations within the slurry wall.

During the decommissioning of the wall, groundwater flows will be monitored closely via the permanent site monitoring wells, and possibly using additional temporary measuring devices such as strategically placed piezometers or temporary well points to measure the post-decommissioning water levels and directions to confirm the effectiveness of the wall perforation. Work will continue until groundwater flow conditions are restored to approximately pre-construction levels. As a result, remnants of the slurry wall are expected to have minor effect on groundwater flows in the area post-construction.

The groundwater flow data will be compared to baseline monitoring of the groundwater based upon the multi-year preconstruction monitoring program described in the Joint Permit Application (JPA). A description of the baseline monitoring program can be found in the JPA (JPA, Rev 1, Binder 1C, Item R2 - Construction Dewatering Mitigation Narrative, Section 4.1). As a result of this program, PPL will have several years of data against which to compare flows during the slurry wall decommissioning process.

With regard to temporary impacts as a result of construction of the slurry wall to groundwater flow to streams, sloughs and wetlands, the COLA Part 3 (4.2) and the JPA (Part 2 – Enclosure D) describe how use of a temporary irrigation system will replenish the wetlands to the south and west of the ESWEMS Pump House and Retention Pond to minimize temporary impacts. Therefore, there will be minimal to no temporary effects from the use of the slurry wall.

It should be noted that other groundwater barrier alternatives are being explored by PPL; however at this time the proposed method of restricting groundwater flow to support ESWEMS Pump House and Retention Pond construction is use of a bentonite-mixture slurry wall. One potential alternative would be the installation and use of a frozen soil retaining wall. Such a wall requires the installation of refrigerant pipes to be installed where a barrier to groundwater movement is required, and the subsequent freezing of a thickness of soil sufficient to serve as an impermeable barrier to groundwater flow. Such a system requires no decommissioning, since the soil will thaw and groundwater conditions normalized following the discontinuation of refrigerant application. PPL will further investigate the availability and reliability of this method to act as an impermeable membrane to support construction.

COLA Impact:

Sections 2.3, 4.2, and 4.3 of the BBNPP COLA ER will be updated in a future revision to incorporate the changes shown on the markup on the following page.

4.2.1.5

In order to excavate down to the bedrock surface and construct the subgrade for the ESWEMS Pond and Pumphouse, the sand and gravel aquifer needs first to be dewatered in the entire excavation area in order to achieve stable sidewalls and to minimize the area that is disturbed during excavation. Prior to excavation a slurry wall will be constructed around the excavation area. This step will be performed in order to minimize the amount of groundwater that flows into the excavation and minimize the potential impacts to the shallow glacial aquifer during construction activities. The relatively large saturated thickness of the outwash aquifer in this area (approximately 20 ft (6 m)) will likely require an active system of dewatering wells to keep the excavation dry during construction. Once construction of the subgrade nears completion, the dewatering wells will be turned off and converted to monitoring wells, if deemed necessary. Otherwise, they will be pressure-grouted shut and abandoned in accordance with PADEP well abandonment requirements.

In the vicinity of the CWS cooling towers, the saturated thickness of the glacial outwash aquifer is significantly lower than that of the ESWEMS Pond and Pumphouse area. As a result, a groundwater flow barrier will likely not be required for this excavation, and the rate at which groundwater will need to be pumped to keep the excavation dry will be significantly lower. Nevertheless, a flow barrier may be considered for the northwestern area of the cooling tower excavation where the outwash aquifer will be encountered.

Surface drainage modifications will also affect elevations in the glacial overburden aquifer. Land pavement over the land surface will significantly affect the surface.

While a slurry wall will be constructed to aid in groundwater depression, this measure alone will affect wetlands and watercourses. Therefore, PPL will implement appropriate mitigation to maintain suitable hydrologic conditions in affected wetlands during periods of intense groundwater withdrawal.

To effectively determine mitigation needs, baseline monitoring of hydrologic conditions within the zone of influence of pumping will be performed. A series of shallow piezometers and soil moisture monitoring devices will be installed in strategic locations, and data collected during a baseline monitoring period will be used to complement data from existing flow gauges and monitoring wells at BBNPP. This record of information will serve as a benchmark for comparison to determine the mitigation needs during the pumping period.

Mitigation measures will include introduction of water to affected wetlands and/or watercourses, as needed, from one or more subsurface storage reservoirs constructed on the site to store pumped groundwater. Application of stored water will be completed by a temporary irrigation system, and continued monitoring of the wetlands will be completed to allow real-time flow corrections to maintain conditions reflecting the baseline.

Post-construction evaluation of affected wetlands will be completed to determine if any additional restoration activities are required to offset any unintended impacts. The compensatory mitigation program for BBNPP includes mitigation measures provided to offset any loss of function or value of affected wetlands during the period of impact from groundwater withdrawal.

The slurry wall will be decommissioned by perforating it with boreholes and if necessary, fracturing with small explosive charges. Subsequent groundwater conditions are expected to be similar to those observed prior to dewatering activities (see Section 4.2.1.5).

- ◆ Possibly increasing sediment loads and channel erosion rates in the downstream reaches of Walker Run and Unnamed Tributary 5.

The final site grading plan is shown in Figure 4.2-1. The site drainage basin areas are not expected to drastically change as a result of the site grading plan.

These impacts to surface water bodies are SMALL, primarily due to the loss of wetlands. The mitigation measures associated with the wetlands are described in Section 4.3.1.6 as required in the Post Construction Stormwater Management Plan. The permanent loss of affected wetlands, 1.4 ac (0.6 ha), compared to 83,797 ac (33,911 ha) of wetlands in the region is SMALL.

4.2.1.6 Identification of Surface Water and Groundwater Users

There are no users of onsite surface water. Walker Run flows into the Susquehanna River where there is recreational boating and fishing. There is no commercial fishing on the Susquehanna River in the vicinity of BBNPP.

Groundwater users in the vicinity of the BBNPP site are identified in Section 2.3.2. The nearest permitted PADEP groundwater well (beyond the boundary of the BBNPP property boundary and downgradient from the site), is permitted as Industrial Use and is located approximately 1.7 mi (2.7 km) from the center of the BBNPP site as shown in Figure 2.3-73.

4.2.1.7 Proposed Practices to Limit or Minimize Hydrologic Alterations

The following actions will be used to limit or minimize expected hydrologic alterations:

- ◆ Groundwater flow barriers will be installed during construction of the ESWEMS Pond and Pumhouse.
- ◆ Installation of stormwater infiltration beds
- ◆ Implementation of best management practices (BMPs) such as;
 - ◆ Maintaining clean working areas;
 - ◆ Removing excess debris and trash from construction areas;
 - ◆ Properly containing and cleaning up all fuel and chemical spills;
 - ◆ Installing erosion prevention devices in areas with exposed soil;
 - ◆ Installing sediment control devices at the edges of construction areas; and
 - ◆ Retaining and controlling stormwater and wash-down water onsite.
- ◆ Implementation of a Post Construction Stormwater Management Plan.

and decommissioned post-construction such that groundwater conditions will approximate those monitored during construction (Section 4.2.1.5);

The infiltration beds are designed to allow runoff to infiltrate into the ground, offsetting the reduction in surface due to the increased area of impervious surface, and thereby maintain post-construction hydrologic conditions as close to preconstruction conditions as possible. They will shift, slightly, the recharge areas for the glacial outwash aquifer. Level spreaders are proposed at all outfall locations. Monitoring of construction effluents and stormwater runoff will be performed as required in the stormwater pollution prevention plan, NPDES Individual

4.3.1.6

USFWS will provide input and ensure the reforestation process will meet specific pre-determined criteria to create suitable Indiana bat habitat.

Surface Water Withdrawal and Consumptive Water Use

Physical impacts of cooling system water withdrawal from the NBSR could include alteration of site hydrology at, and in areas downstream of the intake structure. Studies have been completed to determine if BBNPP water withdrawals will have a negative effect on aquatic habitat, vulnerable aquatic species, and water quality, especially during drought or low flow conditions. Mitigation of potential aquatic impacts during low flow periods is a requirement of the Susquehanna River Basin Commission and is being separately addressed as part of the Commission's regulatory review.

Groundwater Withdrawal

Construction dewatering necessary to support excavation to bedrock for safety-related structures is needed for the power block, cooling towers, and Essential Service Water Emergency Makeup System (ESWEMS) pond. Construction dewatering for the power block and cooling towers is anticipated to be minor and will be accomplished with a series of gravity drains and sump pumps. Dewatering required for the construction of the ESWEMS pond will be more extensive. Mitigation measures such as the installation of a slurry wall will reduce the extent of drawdown and the depth of the groundwater depression. Collection and appropriate ground surface application of the pumped groundwater will maintain groundwater at or near preexcavation levels and prevent impacts to nearby wetland and stream hydrology.

, and post-construction decommissioning will allow groundwater to return to conditions approximating those monitored during pre-construction.

The BBNPP design meets Section 404(b)(1) guidelines regarding avoidance and/or minimization of wetland impacts. Adjustments to the design were made to decrease the size of the required temporary and permanent facilities and to maximize the amount of undisturbed vegetation. Substantial measures taken to minimize impacts after avoidance planning was completed resulted in the impacts currently proposed, in which direct, permanent impacts have been further reduced from approximately 11.3 acres (4.6 hectares) to less than 2 acres (0.8 hectares), the majority of which is associated with the BBNPP Intake Structure. This process included the following avoidance minimization measures:

Wetlands:

Wetland mitigation in Pennsylvania is driven primarily by conditions established by the USACE and PADEP in permits issued under Section 404 of the Federal Water Pollution Control Act and Chapter 105 Dam Safety and Waterway Management Regulations. Wetland mitigation follows a sequencing process beginning with avoidance of wetland impacts, then minimization of wetland impacts, and lastly compensatory mitigation to offset impacts. The proposed facilities have been sited and the proposed construction has been configured to avoid encroaching into wetlands to the extent possible. Therefore, the wetland impacts detailed in 4.3.1.3 must be considered unavoidable.

Several measures will be taken to minimize the unavoidable adverse effects to wetlands. The use of silt fences, temporary and permanent vegetative stabilization, and other soil erosion and sediment control practices would reduce the risk of sediment runoff into intact wetlands adjoining the areas of fill, as well as wetlands located downstream of the project area.

The BBNPP design meets Section 404(b)(1) guidelines regarding avoidance and/or minimization of wetland impacts. Adjustments to the design were made to decrease the size of the required temporary and permanent facilities and to maximize the amount of

Meteorology (MET)

Draft RAI MET-2:**Question Summary:**

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).

Full Text:

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.

Response:

PPL Bell Bend, LLC (PPL) determined that the Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA) Part 3 Environmental Report (ER) Table 2.7-163 was not updated to present the revised EAB distance and 50% X/Q value due to the EAB shape change (circular to non-circular). Accordingly, ER Table 2.7-163 will be revised to present the new EAB shortest distance (0.33 mile) and 50% atmospheric dispersion factor (1.437E-04).

COLA Impact:

The BBNPP COLA ER will be revised in a future revision to reflect changes to BBNPP COLA ER Section 2.7, as shown on the following page.

Table 2.7-163— 0-2 Hour 50th Percentile Accident Atmospheric Dispersion Factors for the EAB (0.43 miles)

time period	0-2 hrs
50% χ/Q (sec/m ³)	1.311E-04

1.437E -04

(0.33 miles)

Draft RAI MET-4:**Question Summary:**

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.

Full Text:

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.

Response:

As presented in the response to NFI MET-4 in BNP-2012-167, PPL Bell Bend, LLC's (PPL) analysis of the distance of the Bell Bend Nuclear Power Plant (BBNPP) meteorological tower to nearby treelines and prevailing winds conditions confirms the Environmental Standard Review Plant (ESRP) 6.4.1 (NUREG 1555) assumption that for towers located more than five obstruction heights away from major obstructions, the influence should be minimal and the proposed tower location is appropriate.

The Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA) Part 3 Environmental Report (ER) Rev. 3, Table 6.4-3, however, was not updated in conjunction with the submission of BNP-2012-167. Accordingly, the ER will be updated to present data consistent with the information in Table 1 of the MET-4 NFI response in the BNP-2012-167 submittal.

COLA Impact:

The BBNPP COLA ER will be revised in a future revision to reflect changes to BBNPP COLA ER Table 6.4-3, as shown on the following page.

**Table 6.4-3— Potential Man-Made Obstructions to Air Flow for the BBNPP
Meteorological Tower**

(Page 1 of 2)

Obstruction	Wind Direction and Sector	Distance (ft)/(m)	Grade / Finished Floor Elevation (ft)/(m)	Height (ft)/(m)	Largest Bottom Dimension (ft)/(m)	Largest Top Dimension (ft)/(m)
SSES Met. Tower	45 NE	4171/1271	650/198	N/A	N/A	N/A
SSES CWS Cooling South Unit 2 (centerline)	19 NNE	3139/957	690/210	540/165	419/128	301/92
SSES CWS Cooling North Unit 1 (centerline)	15 NNE	3823/1165	710/216	540/165	419/128	301/92
BBNPP CWS Cooling East (centerline)	316 NW	4520/1378	700/213	475/145	360/110	202/62
BBNPP CWS Cooling West (centerline)	310 NW	4985/1519	700/213	475/145	360/110	202/62
Treeline (to North)	357 N	260/79	668/204	79/24	N/A	N/A
Treeline (to South)	177 S	300/91	668/204	94/29	N/A	N/A
BBNPP Reactor Building (centerline)	300 WNW	4368/1331	720/219	204.4/62.3	182.87/56	N/A
BBNPP Turbine Building (centerline)	303 WNW	4043/1232	720/219	50/15	384.5/117	N/A
SSES Reactor Building Unit 2 (centerline)	28 NNE	3669/1118	670/204	203.125/61.913	323/98	N/A
SSES Turbine Building Unit 2 (centerline)	26 NNE	3585/1093	676/206	112.21/34.20	630/192	N/A
BBNPP Emergency Diesel Generator South	298 WNW	4141/1262	720/219	68/21	178/54	N/A
BBNPP Emergency Diesel Generator North	304 NW	4464/1361	720/219	68/21	178/54	N/A
BBNPP Service and Administration Building (Access Building)	299 WNW	4214/1284	720/219	62.67/19.10	119.94/37	N/A

Handwritten annotations in red:

- Boxed values: 275/84, 425/130, 52/16, 50/15.
- Red arrows pointing from the boxed values to the 'Distance' and 'Height' columns of the table.
- Red arrows pointing from the 'Distance' column of the 'Treeline (to North)' row to the 'Distance' column of the 'BBNPP CWS Cooling East' row.
- Red arrows pointing from the 'Distance' column of the 'Treeline (to South)' row to the 'Distance' column of the 'BBNPP CWS Cooling West' row.
- Red arrows pointing from the 'Height' column of the 'BBNPP CWS Cooling East' row to the 'Height' column of the 'Treeline (to North)' row.
- Red arrows pointing from the 'Height' column of the 'BBNPP CWS Cooling West' row to the 'Height' column of the 'Treeline (to South)' row.
- Red arrows pointing from the 'Height' column of the 'BBNPP Turbine Building' row to the 'Height' column of the 'BBNPP Reactor Building' row.

Socioeconomics/Environmental Justice (S/EJ)

Draft RAI S/EJ-16:**Question Summary**

Explain how the proposed Confers Lane closure affects the local zoning/permitting process for the BBNPP. What are the expected traffic (including the region's emergency management plan and emergency evacuation routes) impacts from such a closure? Does the fact that Confers Lane is a public road create any additional road-use permitting problems?

Full Text

ESRP Section 4.4.2 directs the staff's analysis and evaluation of the social and economic impacts of construction on the surrounding region and individual communities that could be affected by the proposed project and should consider the social and economic impacts resulting from construction and from the activities and demands of the construction labor force including but not limited to transportation. Salem Township staff expressed concern that the closure of Confers Lane would affect the township's evacuation plan because it is part of the emergency evacuation route. Salem Township representatives indicated that PPL had submitted applications for a subdivision and lot consolidation permit and a conditional use permit. Township staff also noted that the evacuation of Confers Lane has been removed from the subdivision and lot consolidation permit application due to its implications for the township's evacuation plan and would be addressed during the conditional use permit application review process.

Response**Background**

For the reasons outlined below, a small section of Confers Lane in Salem Township must be abandoned, or 'vacated'. PPL owns the land on both sides of Confers Lane for the entire length of the area to be vacated. Confers Lane traverses a total of approximately 9,300 lineal feet between US Route 11 and Beach Grove Road in Salem Township. Approximately 3,100 lineal feet of Confers Lane is planned to be vacated, or one-third the total length. Confers Lane is a little-travelled road in the township.

On Confers Lane south of the proposed closure (i.e., the part still open), there are private residences that are constructed on both sides of the road. The property owners generally access their residences using US Route 11, and will continue to do so.

On Confers Lane north of the proposed closure, there are several PPL facilities along Confers Lane, but nothing else. Confers Lane will remain intact in this location, so that PPL contractors or visitors can access these PPL facilities. The road closure on the north side will begin just south of the access road to the Susquehanna Steam Electric Station (SSES) 500 kV Switchyard (Switchyard #1).

Basis for Vacating a Section of Confers Lane

Closure of a section of Confers Lane is a critical component of the project plan, to improve internal traffic circulation during both construction and operations, and without this action, the project cannot be constructed as planned. The internal roads also have to be secure, which is achieved by a security checkpoint on the Access Road.

The Access Road to the Bell Bend Site is to be located on US Route 11, running north within the project boundary from US Route 11, just east of the existing 500 kV transmission lines. This is the most viable route to move people and equipment to the construction site, and will continue as the secure access for operations.

Once the Access Road nears the existing SSES within the Bell Bend Site, it branches to the west in two different locations, both of which cross the section of Confers Lane to be vacated.

In addition, the Access Road is also used as the Heavy Haul Road which is critical to transporting materials from US Route 11 to where the power plant will be built.

A railroad spur that is being extended from the current railroad line east of the existing SSES would also cross the section of Confers Lane to be vacated. This railroad spur is necessary to bring in equipment and materials vital to construction of the plant.

It should also be noted that the footprint of the permanent plant layout was redesigned to achieve a minimal impact to wetlands, and provisions for compensatory wetland mitigation is an important component of project design and is required to offset minor unavoidable impacts to wetlands associated with the project.

The Pennsylvania Department of Environmental Protection (PaDEP) has evaluated the wetlands within the project boundary and determined that the wetlands on the east side of Confers Lane, just west of the existing SSES 500 kV Switchyard #1 are "Exceptional Value Wetlands" (EV). The PaDEP also noted that the existing wetlands on either side of Confers Lane are hydrologically similar and were likely connected prior to construction of Confers Lane. By removing this section of Confers Lane the hydrological connection between the two wetlands would be restored.

As a result, PPL has proposed a mitigation plan to restore wetlands connectivity. The mitigation plan can be found in part R.5 of the Bell Bend Joint Permit Application (JPA) Revision 1 submittal to the U.S. Army Corps of Engineers (USACE) and PaDEP and shows the stretch of Confers Lane to be removed in order to re-connect wetlands that were separated when Confers Lane was originally constructed. The mitigation involves removing the road bed and soil to the elevation of the existing wetlands on either side of the road, and planting native species to remediate the area.

Vacating the cited section of Confers Lane will create approximately 0.36 acres of wetlands and enhance 0.04 acres of wetlands (Wetland Mitigation Design Report, Confers Lane Site, JPA Rev. 1, Binder 1C, January, 2011). Following the reconnection, wetlands on both sides of the road are expected to be considered EV.

Thus, the prime driver for vacating a section of Confers Lane is to provide a critical improvement to construction period traffic circulation. Secondly, road removal will facilitate restoration of an EV wetlands complex along this portion of Confers Lane. PPL owns the property on both sides of the vacated section and impacts to the public are expected to be minimal, while improvements to construction logistics and the environment are expected to be significant.

The closure or 'vacating' of this small section of Confers Lane is a legislative act that must be approved by the Salem Township Board of Supervisors. PPL is coordinating this activity with Salem Township in conjunction with local township Conditional Use and Lot Consolidation permitting, including performing a supplemental traffic impact study of secondary roads in

Salem Township. The vacation of a portion of Confers Lane will be evaluated in this study as an input to the Conditional Use approvals by Salem Township.

PPL fully anticipates that the section of Confers Lane in the area of the proposed wetlands mitigation plan will be vacated as part of project permitting activities, and that the wetlands mitigation as proposed will be implemented when the plant is constructed. As a result, there is no proposed substitute compensatory mitigation proposed.

PPL appreciates Salem Township's concerns and are confident that a mutually acceptable resolution to their concerns can be achieved once the impacts are studied and compensated for, including traffic flow, emergency plan routing, and loss of PA fuel tax revenue.

Local zoning/permitting process impacts

The 'vacating' of this small section of Confers Lane is a legislative act that must be approved by Salem Township Board of Supervisors through the adoption of a "road vacation ordinance" pursuant to Sections 67304 and 67305 of the Pennsylvania Second Class Township Code and Section 1672 of the Pennsylvania General Municipal Law. It is an action that is separate from Township permitting activities such as Conditional Use and Lot Consolidation, and is expected to be acted upon prior to or shortly after final Conditional Use and Lot Consolidation, and to become effective at the time that the Township Board of Supervisors grants final land development approval for the project. If the road vacation ordinance is not adopted prior to Conditional Use approval, that Conditional Use approval will be conditioned upon the adoption of the road vacation ordinance.

The township permitting activities for Conditional Use and Lot Consolidation are defined in the Salem Township Zoning Ordinance and Subdivision and Land Development Ordinance. As discussed at the ER Audit in May, 2012, the property has been rezoned to I-3 (Industrial-3), and Conditional Use/Lot Consolidation is in process and planned to be completed by 2014.

Traffic impacts associated with road closure

Response: A supplemental traffic study is to be performed 4Q 2012 to determine the impact of Bell Bend Construction Traffic on secondary roads in Salem Township. This will include traffic counts on Confers Lane, and a review of the emergency management plan and emergency evacuation routes, with revisions recommended if needed, to accommodate the closed section of Confers Lane. PPL will work with Salem Township during the Conditional Use and Land Development permitting activities to identify and resolve any impacts to these plans. Since Confers Lane is not a high volume traffic road, impacts are expected to be minimal.

Public road closure permitting implications

The closure does not create any other road-use permitting problems because the road is not controlled by any other government entity, including the Pennsylvania Department of Transportation (PennDOT).

The closure of Confers Lane is not (and was never) referenced on the subdivision/ lot consolidation plans because vacating of that section of Confers Lane is neither necessary nor relevant to that approval, which merely seeks to consolidate the parcels necessary for the project. The closure of Confers Lane is necessary for and will be a condition of the Conditional Use approval.

COLA Impact:

No change to the BBNPP COLA is required as a result of this response.

Draft RAI S/EJ-17:

Question Summary

Provide an assessment of the BBNPP traffic impacts during the construction period on secondary routes, including Salem Township roads that might be adversely affected by traffic diversion off Route 11 during congested periods.

Indicate why these secondary roads were largely excluded from the traffic impact study (TIS) (ML120380216) and indicate whether the TIS will be updated to reflect recent area developments (e.g., the addition of Western International Gas and Cylinders and the expansion of Tech Packaging) and the aforementioned impacts on secondary routes.

If the TIS is being updated, please indicate when the revised draft is scheduled for completion. If there is no plan to update the TIS, indicate why an update is not necessary.

Does limiting traffic to only Route 11 and other primary roads meet the PennDOT TIS requirements for road-use permitting purposes?

Full Text

ESRP Section 4.4.2 directs the staff's analysis and evaluation of the social and economic impacts of construction on the surrounding region and individual communities that could be affected by the proposed project and should consider the social and economic impacts resulting from construction and from the activities and demands of the construction labor force including but not limited to transportation. Salem Township staff expressed concern regarding the traffic impact study (TIS) (ML120380216) performed for the BBNPP. More specifically, township staff argued that the TIS was outdated and did not adequately address the impact of traffic diversion during congested periods onto secondary routes located within the township. Township staff argued that the TIS did not account for recent growth in the area driven by the addition of Western International Gas and Cylinders and the expansion of Tech Packaging. Further, township staff indicated that more growth is expected, as there is an application pending for a co-gen natural gas plant in the area. Township staff members are hopeful the TIS will be updated and additional mitigation strategies implemented.

Response

Scope of Bell Bend Nuclear Power Plant (BBNPP) Traffic Impact Study (TIS)

The TIS was prepared in accordance with PennDOT requirements as cited in their "Policies and Procedures for Transportation Impact Studies" (January 2009) and related documents as cited in the Bell Bend Traffic Impact Study revision 5 references.

The requirements call for a formal Scoping Meeting at which the scope of the TIS is presented and discussed, and then finalized and accepted by the lead agency (in this case, PennDOT). This process was followed, with the Scoping Meeting held as required, final scope agreed upon, and the TIS completed and submitted.

In accordance with standard practice as specified by PennDOT, local jurisdictions and other stakeholders who could potentially be impacted by the Bell Bend Project were invited to provide input to PennDOT and PPL Bell Bend, LLC (PPL) on the project traffic impact study. The

scoping meeting was held on February 17, 2010. PennDOT Districts 3 and 4, and several municipalities attended this meeting, including representatives from Berwick Borough, Salem Township, and the Luzerne County Planning Commission. In that meeting PennDOT and the other stakeholders voiced their input for scope of the traffic roads and intersections to study, and the outcome of this scoping is documented in the letter. A Salem Township Supervisor attended the Scoping Meeting.

Salem Township did not provide input as to concerns with traffic impacts to secondary roads in the township as part of the scoping process. They have since done so, to both PPL in April 2012, and to the NRC during the NRC ER Audit in May, 2012. This is addressed in the next question, below.

As to the traffic that will be generated by both the future operations of the plant and the construction activity, PPL had proposed that a new Access Road be built on its property and an intersection with US Route 11 be established. This was explicitly addressed in the Scoping Meeting and the TIS, and is to be a secure access path to the Bell Bend plant, with a security checkpoint on the Access Road. All traffic accessing the Bell Bend Site will be expected to use the new intersection of the Access Road with US Route 11. Vehicles will not be able to enter the site from Salem Township secondary roads during the construction phase.

The Scoping Meeting and the TIS also addressed the distribution of trips that will approach the site, and depart from it. That distribution, including the principal routes used, was approved by PennDOT as part of the process, in accordance with its procedures.

Further, the Scoping Meeting included explicit estimated growth factors for future background (non-PPL) traffic. In standard practice, these growth factors take into account various actions that will happen after the scope is defined. This therefore includes such items as the addition of Western International Gas and Cylinders and the expansion of Tech Packaging in Salem Township. The TIS and the PennDOT review has been conducted on the basis of the agreed Scope, including growth factors for traffic beyond the scope approval date.

With regard to non-state, non-interstate roads, there was some anticipated impact on secondary roads addressed in the TIS as a result of the Scoping Meeting process and Scope Approval. The selection of roads to be included in the TIS followed the defined process by PennDOT.

Detailed designs to implement mitigations identified in the TIS are addressed at a later stage in the local process, when "highway occupancy permits" (HOP) are issued for construction work whose detailed plans and design drawings meet PennDOT practices.

Status of BBNPP TIS

In April 2012, Salem Township raised concerns regarding the potential impact of construction traffic on (a) its local roads, and (b) ease of access of its existing traffic to US Route 11. To respond to those concerns, PPL has committed to perform a supplemental traffic study in 4Q 2012 to determine the impact of Bell Bend Construction Traffic related to these two issues in Salem Township. PPL has informed PennDOT, and PennDOT knows that a supplemental study will be prepared and submitted on the impacts and any proposed mitigation related to the issues raised by Salem Township.

PPL will meet with Salem Township to reach agreement on a scope of this supplemental study prior to embarking on the study. To assure representative traffic, the actual study will be done in 4Q 2012 and the results discussed with Salem Township, and submitted to PennDOT District 4-0.

The identification of impacts and candidate mitigations will be specified in the supplemental study. Because PennDOT has jurisdiction as the lead agency, PPL is not in a position to assure that PennDOT will choose to implement some or all of the findings.

The impacts related to the proposed closure of a section of Confers Lane will also be addressed in this supplemental study, and the local documents/plans related to emergency evacuation routes will also be reviewed. Recommendations will be made for specific revisions to these documents, if needed.

The local process continues to be followed, and the Salem Township concerns cited on traffic impacts will now be addressed. The process will produce the supplemental study by the end of 4Q 2012.

The TIS itself will only be updated in a new revision (revision 6) after all PennDOT comments on revision 5 have been addressed. But the impacts, proposed mitigation, and needed actions to address PennDOT comments are now identified and the local process is moving ahead on schedule.

Revision 6 of the TIS will be intended as a final document of record, integrating the comments generated by Revision 5 and the supplement study work. It will be generated at a future date. The supplemental study as noted above will define any additional potential mitigation actions, however, PennDOT will choose what, if any, mitigation actions will be implemented. This interaction is expected in 2013.

COLA Impact:

No change is currently required to the BBNPP COLA as a result of this response. COLA Part 3, Environmental Report, will be updated if needed based upon the supplemental study work of 4Q 2012. Such updates would be expected to be completed in calendar year 2013.

Terrestrial Ecology (TE)

Draft RAI TE-37:**Question Summary**

In reference to PPL's proposed Confers Lane compensatory wetland mitigation project, provide information indicating whether Confers Lane would remain open and, if so, the fate of the mitigation project; i.e., whether the project would be undertaken, how, and the anticipated amount of wetland created and/or enhanced. Alternatively, if Confers Lane will remain open and the mitigation project would not be executed, describe any PPL plans for substitute compensatory mitigation.

Full Text

ESRP Section 4.3.1 directs the staff's description, quantification, and assessment of the impacts of construction on the terrestrial ecosystem. The scope of the review includes an assessment of both onsite and offsite construction, including transmission line and access corridor construction. The assessment should be in sufficient detail to (1) predict and evaluate the significance of potential impacts to "important" species and their habitats and (2) evaluate how these impacts should be considered in the licensing decision. If necessary, the reviewer should suggest consideration of alternative designs or construction practices, or licensee commitments to mitigate the intensity of environmental impacts.

PPL's Joint Permit Application to the U.S. Army Corps of Engineers provides a detailed proposed mitigation plan to reconnect two wetlands (formerly joined hydrologically), one on either side of Confers Lane, as partial compensation for construction of BBNPP. The plan is based on closing Confers Lane, removing the roadbed down to the level of the existing wetlands to restore the hydrological connection, and revegetating imported native soil. However, information obtained from Salem Township at the site audit in May 2012 indicated that Confers Lane may not be closed, calling into question whether the proposed mitigation plan would be undertaken and, if so, how and with what anticipated result, or alternatively, whether it would be substituted with other compensatory mitigation.

Response**Background**

For the reasons outlined below, a small section of Confers Lane in Salem Township must be abandoned, or 'vacated'. PPL Bell Bend, LLC (PPL) owns the land on both sides of Confers Lane for the entire length of the area to be vacated. Confers Lane traverses a total of approximately 9,300 lineal feet between US Route 11 and Beach Grove Road in Salem Township. Approximately 3,100 lineal feet of Confers Lane is planned to be vacated, or one-third the total length. Confers Lane is a little-travelled road in the township.

On Confers Lane south of the proposed closure (i.e., the part still open), there are private residences that are constructed on both sides of the road. The property owners generally access their residences using US Route 11, and will continue to do so.

On Confers Lane north of the proposed closure, there are several PPL facilities, but nothing else. Confers Lane will remain intact in this location, so that PPL contractors or visitors can access these PPL facilities. The road closure on the north side will begin just south of the

access road to the Susquehanna Steam Electric Station (SSES) 500 kV Switchyard (Switchyard #1).

Basis for Vacating a Section of Confers Lane

Closure of a section of Confers Lane is a critical component of the project plan, to improve internal traffic circulation during both construction and operations, and without this action, the project cannot be constructed as planned. The internal roads also have to be secure, which is achieved by a security checkpoint on the Access Road.

The Access Road to the Bell Bend Site is to be located on US Route 11, running north within the project boundary from US Route 11, just east of the existing 500 kV transmission lines. This is the most viable route to move people and equipment to the construction site, and will continue as the secure access for operations.

Once the Access Road nears the existing SSES within the Bell Bend Site, it branches to the west in two different locations, both of which cross the section of Confers Lane to be vacated.

In addition, the Access Road is also used as the Heavy Haul Road which is critical to transporting materials from US Route 11 to where the power plant will be built.

A railroad spur that is being extended from the current railroad line east of the existing SSES would also cross the section of Confers Lane to be vacated. This railroad spur is necessary to bring in equipment and materials vital to construction of the plant.

It should also be noted that the footprint of the permanent plant layout was redesigned to achieve a minimal impact to wetlands, and provisions for compensatory wetland mitigation is an important component of project design and is required to offset minor unavoidable impacts to wetlands associated with the project.

The Pennsylvania Department of Environmental Protection (PaDEP) has evaluated the wetlands within the project boundary and determined that the wetlands on the east side of Confers Lane, just west of the existing SSES 500 kV Switchyard #1 are "Exceptional Value Wetlands" (EV). The PaDEP also noted that the existing wetlands on either side of Confers Lane are hydrologically similar and were likely connected prior to construction of Confers Lane. By removing this section of Confers Lane the hydrological connection between the two wetlands would be restored.

As a result, PPL has proposed a mitigation plan to restore wetlands connectivity. The mitigation plan can be found in part R.5 of the Bell Bend Joint Permit Application Revision 1 submittal to the U.S. Army Corps of Engineers (USACE) and PaDEP and shows the stretch of Confers Lane to be removed in order to re-connect wetlands that were separated when Confers Lane was originally constructed. The mitigation involves removing the road bed and soil to the elevation of the existing wetlands on either side of the road, and planting native species to remediate the area.

Vacating the cited section of Confers Lane will create approximately 0.36 acres of wetlands and enhance 0.04 acres of wetlands (Wetland Mitigation Design Report, Confers Lane Site, JPA Rev. 1, Binder 1C, January, 2011). Following the reconnection, wetlands on both sides of the road are expected to be considered EV.

Thus, the prime driver for vacating a section of Confers Lane is to provide a critical improvement to construction period traffic circulation. Secondly, road removal will facilitate restoration of

an EV wetlands complex along this portion of Confers Lane. PPL owns the property on both sides of the vacated section and impacts to the public are expected to be minimal, while improvements to construction logistics and the environment are expected to be significant.

The closure or 'vacating' of this small section of Confers Lane is a legislative act that must be approved by the Salem Township Board of Supervisors. PPL is coordinating this activity with Salem Township in conjunction with local township Conditional Use and Lot Consolidation permitting, including performing a supplemental traffic impact study of secondary roads in Salem Township. The vacation of a portion of Confers Lane will be evaluated in this study as an input to the Conditional Use approvals by Salem Township.

PPL fully anticipates that the section of Confers Lane in the area of the proposed wetlands mitigation plan will be vacated as part of project permitting activities, and that the wetlands mitigation as proposed will be implemented when the plant is constructed. As a result, there is no proposed substitute compensatory mitigation proposed.

PPL appreciates Salem Township's concerns and are confident that a mutually acceptable resolution to their concerns can be achieved once the impacts are studied and compensated for, including traffic flow, emergency plan routing, and loss of PA fuel tax revenue.

COLA Impact:

No change to the BBNPP COLA is required as a result of this response.