BellBendCOLPEm Resource

From: Canova, Michael
Sent: Friday, June 05, 2009 10:56 AM
To: Sgarro, Rocco R; BBNPP@pplweb.com; jennifer.mcqueeney@unistarnuclear.com; Katie.Thurstin@unistarnuclear.com
Cc: BellBendCOL Resource; Vrahoretis, Susan; Cook, Christopher; Raione, Richard
Subject: Bell Bend COLA - Draft Request for Information No. 18 (RAI No. 18)- RHEB - 2842
Attachments: Letter 18 - RAI 2842 RHEB.doc

Attached is DRAFT RAI No. 18 for the Bell Bend COL Application. You have ten working days to review this request and to decide whether you need a conference call to discuss it. Please notify my of your decision in this regard.

After the call, or after ten days, the RAI will be finalized and sent to you. You will then have 30 days to respond. These durations are factored into your review schedule. If additional time is required to respond, please inform me of your proposed schedule to respond at your earliest opportunity.

If you have any questions, please contact me.

Michael A. Canova
Project Manager - Bell Bend COL Application
Docket 52-039
EPR Project Branch
Division of New Reactor Licensing
Office of New Reactors
301-415-0737

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From: Canova, Michael

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Letter 18 - RAI 2842 RHEB.doc	31738	

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Request for Additional Information No. 18 Revision 1
DRAFT
6/2/2009

Bell Bend
PPL Bell Bend LLC.
Docket No. 52-039
SRP Section: 02.04.02 - Floods
Application Section: FSAR 2.4.2

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.02-1

A requirement to consider physical site characteristics in site evaluations is specified in 10 CFR 100.20(c). In addition, General Design Criterion 2 and 10 CFR 52.79(a)(1)(iii) require consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated. Staff review of the information provided in FSAR Section 2.4.2 indicates that additional information is needed to complete its review and to determine if applicable regulations have been met. The following information is requested.

1. To clearly delineate site drainage features, the applicant is requested to provide revised large-format copies of drawings that show site drainage features, such as roadways, culverts, ditches, chutes, and berms. The drawings should be at least as detailed as several drawings reviewed by the staff during the hydrology site audit, such as Drawings 12198-004-CSK-A, -B, -C, and -D. These drawings should provide cross-sections and plan views of specific areas where critical water levels and ponding elevations occur. Note that although the staff reviewed the drawings discussed above during the site audit, the staff expects revisions to be made to these drawings based on site audit discussions regarding the level of detail shown on these drawings.
2. To show the potential effects on flood magnitudes and ponding levels, the applicant is requested to provide information regarding the Vehicle Barrier System (VBS). Based on information provided during the site audit, it appears that the VBS will be placed on and near access roads, but various openings will be provided to allow storm water to pass through. If the VBS restricts overland flow and ponding occurs, it is important to quantify the ponding levels. The applicant is requested to provide detailed information regarding: (1) the details and extent of the VBS system, particularly in the power block area; (2) the locations of openings in the VBS where water will pass through; and (3) how, when, and where the VBS will restrict flows and affect ponding levels. Further, the applicant shall provide the calculation package associated with the design of the VBS. The calculation package reviewed by the staff at the site audit was titled "*PMF for Bell Bend NPP Site Drainage System*", Calculation F-4 4(c). The applicant should include all revisions to the proposed drainage design in an updated calculation package.
3. To fully document the technical bases for design of the site drainage system, the applicant is requested to provide the calculation package "*PMF for Bell Bend NPP Site Drainage System*", Calculation F-4 4(c). This calculation package

should provide the technical bases for the determination of times of concentration, rainfall intensity, loss rates, peak flows, and resultant water levels in the power block area. Although the staff reviewed calculation packages at the site audit, the staff expects that a significant amount of additional information will be incorporated in this revised package to reflect the additional detail associated with the design of roadways, berms, VBS, and drainage ditches and intends to evaluate this information.

To fully document the bases for the determination of the magnitude of the PMF for Walker Run and other streams or sub-basins in the site area, the applicant should provide additional information. The staff reviewed Calculation F-1 1(e) "*Probable Maximum Storm Event for Walker Run Watershed BBNPP*," dated August 5, 2008 and Calculation F-1 1(a) "*Evaluation of Probable Maximum Flood Event*," dated March 11, 2008 during the site audit. These calculations are required to be submitted for staff review, and should represent the final site grading and characteristics.