BellBendCOLPEm Resource

From: Canova, Michael
Sent: Friday, July 10, 2009 12:18 PM
To: Sgarro, Rocco R; BBNPP@pplweb.com; jennifer.mcqueeney@unistarnuclear.com; Katie.Thurstin@unistarnuclear.com
Cc: BellBendCOL Resource; Vrahoretis, Susan; McBride, Mark; Raione, Richard
Subject: Bell Bend COLA - Request for Information No. 30 (RAI No. 30)- RHEB - 2811
Attachments: Letter 30 - RAI 2811 RHEB.pdf

Attached is RAI No.30 for the Bell Bend COL Application. Having received no specific request for discussion, we are releasing the final version of this document for your action.

You are requested to respond to this request within 30 days. Response 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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Request for Additional Information No. 30

7/10/2009

Bell Bend
PPL Bell Bend LLC.
Docket No. 52-039
SRP Section: 02.04.13 - Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters
Application Section: 02

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.13-1

The BBNPP site must meet the requirements of 10 CFR 100.20 and 10 CFR 20 Appendix B, Table 2, Column 2 effluent concentration limits with respect to establishing the effects of accidental releases of radioactive liquid effluents in ground and surface waters.

The applicant's analysis of the accidental release of liquid radioactive effluent in FSAR section 2.4.13 considers release of contaminated groundwater from the site to the nearest potential receptors such as Walker Run. The staff requests that the applicant also:

- Evaluate and compare to Appendix B effluent concentration limits, the contaminant concentrations that would be present in the Susquehanna River adjacent to the Pennsylvania American Water Company (PAW) public supply wells in Berwick, PA as the result of an accidental release;
- Identify plausible alternative groundwater pathways and receptors based on post-construction groundwater flow conditions; and
- Provide analyses and calculation packages for transport of radionuclides in the groundwater and surface water.

Please prepare and provide the above-requested analyses and the calculations supporting these analyses, and identify where this additional information is or will be provided so that the staff can inspect and evaluate it.

02.04.13-2

The BBNPP site must meet the requirements of 10 CFR 100.20 with respect to defining the physical characteristics of the site which could affect accidental releases of radioactive liquid effluents in ground and surface waters.

The staff requests that the applicant provide information as to how the laboratory tests for the distribution coefficient K_d of subsurface materials were performed, including the report from Rizzo Associates (dated 4/1/08). Regarding measured K_d values, please indicate to what extent the potential effects of the chemistry of liquid in the spilled tank,

such as ionic strength, pH, Eh, colloids, and possible chelating agents such as EDTA, have been taken into consideration, including how they might influence retardation along the groundwater pathway.

02.04.13-3

To meet the requirements of 10 CFR 100.20, please provide the calculation package and MODFLOW model input files used to evaluate the impact of the proposed slurry wall groundwater barrier, which is going to be constructed and utilized during construction of the power block and pumphouse area, on groundwater travel times and flow paths.