

## **PSEGESPeRAIPEm Resource**

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**From:** Chowdhury, Prosanta  
**Sent:** Friday, May 06, 2011 11:31 AM  
**To:** 'PSEGRAIResponses@pseg.com'  
**Cc:** PSEGESPeRAIPEm Resource; 'David.Lewis2@pseg.com'; 'James.Mallon@pseg.com'; 'David.Robillard@pseg.com'; Colaccino, Joseph; Silvia, Andrea; Clark, Phyllis; McLellan, Judith; Caverly, Jill; Giacinto, Joseph; Raione, Richard  
**Subject:** PSEG Site ESPA DRAFT RAI 29 (eRAI 5714) SRP-02.04.12 (RHEB)  
**Attachments:** PSEG Site ESPA Draft RAI 29 (eRAI 5714).doc

Please find attached DRAFT RAI No. 29 for the PSEG Site ESP application. You have ten working days to review this request and to decide whether you need a conference call to discuss it. Please notify me of your decision in this regard.

After the call, or after ten days, the RAI will be finalized and issued to you. You will then have 30 calendar 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.

Prosanta Chowdhury  
Project Manager  
EPR Projects Branch  
Division of New Reactor Licensing  
Office of New Reactors  
301-415-1647

**Hearing Identifier:** PSEG\_Site\_EarlySitePermit\_RAI  
**Email Number:** 52

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**Subject:** PSEG Site ESPA DRAFT RAI 29 (eRAI 5714) SRP-02.04.12 (RHEB)  
**Sent Date:** 5/6/2011 11:31:13 AM  
**Received Date:** 5/6/2011 11:31:14 AM  
**From:** Chowdhury, Prosanta

**Created By:** Prosanta.Chowdhury@nrc.gov

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PSEG Site ESPA Draft RAI 29 (eRAI 5714).doc	32250	

**Options**

**Priority:** Standard

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**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

Request for Additional Information No. 29

Application Revision 0

DRAFT

5/6/2011

PSEG Site ESP  
PSEG Power LLC, PSEG Nuclear LLC  
Docket No. 52-043  
SRP Section: 02.04.12 - Groundwater  
Application Section: 2.4.12

QUESTIONS for Hydrologic Engineering Branch (RHEB)

02.04.12-1

In accordance with the requirements of 10 CFR 100.20(c) "Factors to be considered when evaluating sites" relating to hydrology and as recommended in Standard Review Plan 2.4.12 "Groundwater" acceptance criteria, please describe hydrogeologic parameters for the units described in Sections 2.4.12.1.2.2 (Alluvium) through 2.4.12.1.2.13 (Merchantville Formation). The only unit discussed in detail was the Potomac Raritan Magothy (PRM) Formation" (Section 2.4.12.1.2.14)

02.04.12-2

In accordance with the requirements of 10 CFR 100.20(c) "Factors to be considered when evaluating sites" relating to hydrology and as recommended in Standard Review Plan 2.4.12 "Groundwater" acceptance criteria, please describe the detailed development of the groundwater flow model, the integration of the previous site model, existing regional studies and site specific parameters and data, and discuss the model simulations and calibration including the impacts of boundary conditions on model accuracy.

02.04.12-3

In accordance with the requirements of 10 CFR 100.20(c) "Factors to be considered when evaluating sites" relating to hydrology and as recommended in Standard Review Plan 2.4.12 "Groundwater" acceptance criteria, please describe the horizontal and vertical model grid cell sizing and associated numerical accuracy of the model simulations for the 1988 Dames and Moore study Section 2.4.12.3.2 and the more recent Dewatering Study (Section 2.4.12.4.1.1).

02.04.12-4

In accordance with the requirements of 10 CFR 100.20(c) "Factors to be considered when evaluating sites" relating to hydrology and as recommended in Standard Review Plan 2.4.12 "Groundwater" acceptance criteria, please describe the assumptions used

for conservative modeling of flow velocity such as the assumptions extending to the hydraulic conductivity, porosity and hydraulic gradient (Section 2.4.12.1.3.5), and clarify the use of site specific porosity information for horizontal and vertical flow velocity calculations. Also, please update Table 2.4.12-1 to indicate whether porosities listed are effective or total porosities, and update Table 2.4.12-8 so that the footnote agrees with the nomenclature used to delineate an upward or downward hydraulic gradient.

#### 02.04.12-5

In accordance with the requirements of 10 CFR 100.20(c) “Factors to be considered when evaluating sites” relating to hydrology and as recommended in Standard Review Plan 2.4.12 “Groundwater” acceptance criteria, please: (1) clarify how the 1988 Dames and Moore modeling results remain conservative and applicable; and (2) describe whether existing production wells are to be used for water supply and address the impacts of any new proposed wells on groundwater flow, vertical gradients, and transport pathways.