

## **PSEGESPeRAIPEm Resource**

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**From:** Chowdhury, Prosanta  
**Sent:** Tuesday, May 17, 2011 11:32 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; Candelario, Luisette; Cook, Christopher; Hearn, Peter  
**Subject:** PSEG Site ESPA DRAFT RAI 30 (eRAI 5726) SRP-02.05.04 (RGS2)  
**Attachments:** PSEG Site ESPA Draft RAI 30 (eRAI 5726).doc

Please find attached DRAFT RAI No. 30 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:** 60

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**Subject:** PSEG Site ESPA DRAFT RAI 30 (eRAI 5726) SRP-02.05.04 (RGS2)  
**Sent Date:** 5/17/2011 11:32:27 AM  
**Received Date:** 5/17/2011 11:32:28 AM  
**From:** Chowdhury, Prosanta

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

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**Post Office:** HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	769	5/17/2011 11:32:28 AM
PSEG Site ESPA Draft RAI 30 (eRAI 5726).doc		31226

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

Request for Additional Information No. 30

Application Revision 0

DRAFT

5/17/2011

PSEG Site ESP  
PSEG Power LLC, PSEG Nuclear LLC  
Docket No. 52-043

SRP Section: 02.05.04 - Stability of Subsurface Materials and Foundations

Application Section: Section 2.5.4

QUESTIONS for Geosciences and Geotechnical Engineering Branch 2 (RGS2)

02.05.04-2

PSEG Site ESP Application SSAR Table 2.5.4.6-1 presents ground water levels recorded between January 2009 and December 2009. 10 CFR 100.23 (d)(4) requires the evaluation and determination of siting factors for design conditions, including liquefaction potential. In accordance with this regulation, justify and discuss why the average groundwater elevation of 0.6 ft North American Vertical Datum (NAVD) was calculated from groundwater monitoring data collected between January 2009 and July 2009 instead of the complete data range (January to December, 2009). In addition, discuss any impacts to the liquefaction assessment if the complete date range of monitoring data had been used.

02.05.04-3

PSEG Site ESP Application SSAR Subsection 2.5.4.8 discusses liquefaction potential. 10 CFR 100.23 (d)(4) requires the evaluation and determination of siting factors for design conditions, including liquefaction potential. In accordance with the regulation:

a) State the method and provide the equations used to calculate  $(N_1)_{60}$  and the supporting correction factor values used for each individual boring sampled. Indicate if a correction factor for overburden stress ( $C_N$ ) varying with depth was used and provide equations and justification. Also, state any limiting values applied to the correction factors along with justifications for such values.

b) State the method and provide the equations used to calculate Cyclic Stress Ratio ( $CRR_{7.5}$ ), Magnitude Scaling Factor (MSF), and the correction factor for overburden stress ( $k_s$ ). Provide and justify values for variables in the above equations and state any limiting or average values that were applied, along with a justification for each value.