

## **PSEGESPeRAIPEm Resource**

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**From:** Chowdhury, Prosanta  
**Sent:** Friday, February 03, 2012 4:07 PM  
**To:** 'PSEGRAIResponses@pseg.com'  
**Cc:** PSEGESPeRAIPEm Resource; 'James.Mallon@pseg.com'; 'David.Robillard@pseg.com'; Segala, John; Silvia, Andrea; Roach, Kevin; Clark, Phyllis; Canova, Michael; McLellan, Judith; Tammara, Seshagiri; Schaaf, Robert  
**Subject:** PSEG Site ESPA DRAFT RAI 55 (eRAI 6289) SRP-02.02.03 (RPAC-RSAC)  
**Attachments:** PSEG Site ESPA Draft RAI 55 (eRAI 6289).doc

Please find attached DRAFT RAI No. 55 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  
Licensing Branch 1 (LB1)  
Division of New Reactor Licensing  
Office of New Reactors  
301-415-1647

**Hearing Identifier:** PSEG\_Site\_EarlySitePermit\_RAI  
**Email Number:** 104

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**Subject:** PSEG Site ESPA DRAFT RAI 55 (eRAI 6289) SRP-02.02.03 (RPAC-RSAC)  
**Sent Date:** 2/3/2012 4:07:02 PM  
**Received Date:** 2/3/2012 4:07:06 PM  
**From:** Chowdhury, Prosanta

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

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

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MESSAGE	769	2/3/2012 4:07:06 PM
PSEG Site ESPA Draft RAI 55 (eRAI 6289).doc	31226	

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

Request for Additional Information No. 55

Application Revision 0

DRAFT

2/3/2012

PSEG Site ESP  
PSEG Power LLC, PSEG Nuclear LLC  
Docket No. 52-043  
SRP Section: 02.02.03 - Evaluation of Potential Accidents  
Application Section: 2.2.3

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

02.02.03-4

RS-002 and RG 1.206 provide guidance regarding the information that is needed to ensure that the potential hazards in the site vicinity are identified and evaluated in order to meet the siting criteria in 10 CFR 100.20 and 10 CFR 100.21.

In SSAR Section 2.2.3.2.3, the applicant addresses potential flammable vapor cloud explosions due to chemicals transported by vessels on the Delaware River. The applicant evaluated this by performing probabilistic analysis which consisted of determining allowable trips for each of the chemicals (SSAR Table 2.2-14) and comparing the allowable trips against the estimated trips of that chemical (SSAR Table 2.2-15). The applicant concluded by stating, "For each chemical, the total number of allowable trips is greater than the estimated number of trips; therefore, none of these chemicals pose a threat greater than  $10^{-6}$  hazards per year."

Based on the acceptance criteria of NUREG-0800, the staff considers that the *aggregate* probability of hazard should be determined, based on realistic data and assumptions, to be  $10^{-6}$  or less per year, as opposed to the applicant's assessment of discrete individual chemical trips each having a probability of  $10^{-6}$  or less per year. The assessment of the hazard probability should include solid explosives transport also. Therefore, the applicant is requested to revise the calculations to determine the total probability of explosive hazard from flammable vapor clouds due to all chemicals and solid explosives transported by vessels on the Delaware River.