

## **PSEGESPEnveRAIPEm Resource**

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**From:** Fetter, Allen  
**Sent:** Wednesday, July 31, 2013 2:52 PM  
**To:** 'PSEGRAIResponses@pseg.com' (PSEGRAIResponses@pseg.com); Robillard, David L (David.Robillard@pseg.com); 'Mallon, James' (James.Mallon@pseg.com)  
**Cc:** PSEGESPEnveRAIPEm Resource  
**Subject:** PSEG Site ESPA Draft Supplemental RAI-11S (eRAI\_7211)  
**Attachments:** PSEG Site ESPA Draft Supplemental RAI Env-11S (eRAI\_7211).pdf

Please find attached a draft supplemental RAI pertaining to postulated accidents for the environmental review of the PSEG Site ESP application.

Please note that the draft RAI in the attached file have been assigned a letter number with a suffix (S) that will allow it to be tracked back to the original RAI (Env-11). A unique e-RAI identifying number (eRAI 7211) will be used to distinguish the supplemental RAI from the original RAIs as well.

You have ten working days to review this draft supplemental RAI and to decide whether you need a conference call to clarify any of portion of the RAI. After the call, or after ten days, NRC will finish processing the RAI through the eRAI system and issue it to you as a final RAI. Subsequent their receipt, you will then have 30 calendar days to respond.

If you have any questions, please contact me.

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Office of New Reactors  
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**Hearing Identifier:** PSEG\_Site\_EarlySitePermit\_Env\_RAI  
**Email Number:** 32

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**Received Date:** 7/31/2013 2:52:06 PM  
**From:** Fetter, Allen

**Created By:** Allen.Fetter@nrc.gov

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**Options**

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## **Request for Additional Information Env-11S**

Issue Date: 07/31/2013

Application Title: PSEG Site ESP Environmental Review - Docket 52-043

Operating Company: PSEG Power LLC, PSEG Nuclear LLC

Docket No. 52-043

Review Section: ESP EIS 5.11 - Environmental Impacts of Postulated Accidents

Application Section: ER

### QUESTION

#### ESP EIS 5.11-7

rACC-03S - Provide updated MACCS2 input and output files for the PSEG site and the reactor designs considered in Section 7.2 of the Environmental Report that activate the necessary MACCS2 input parameters for providing Safety Goal risk values (i.e., average individual risk and population weighted risk).

#### *Supporting Information*

ESRP Section 7.2 directs the staff's evaluation and input to the environmental impact statement (EIS) of the environmental risks of accidents involving radioactive material that can be postulated for the plant(s) under review. Draft Revision 1 of ESRP Section 7.2 (dated July 2007 for comment and use) directs that the reviewer should compare severe accident dose risks with the Commission's Safety Goals (NRC 1986) and with the doses estimated for normal operations.

Prior Environmental Impact Statements for new reactors use two numerical objectives from a reactor accident in determining achievement of the Safety Goals, namely 1) the individual risk of a prompt fatality and 2) the sum of cancer fatality risks for an individual. These values are determined by the MACCS2 code where it calculates the average individual early and latent cancer fatality risks. These values are provided in the MACCS2 output listing if the EARLY module input parameters TYPE4NUMBER and TYPE8NUMBER have been activated (see MACCS2 User's Guide Volume 1, NUREG/CR-6613 Sections 6.14 and 6.18).

PSEG Supplemental Response to Request for Additional Information, No ENV-11, ESP EIS 5.11, Environmental Impacts of Postulated Accidents (ND-2012-007 dated November 29, 2012) provided in Enclosure 1 the PSEG ESP MACCS2 input and output files and Calculation 2009-11222, Revision 2 of "Environmental Consequence Analysis for PSEG ESPA," herein noted as the PSEG calc-file. The PSEG calc-file also provides in Attachment J the Hope Creek ER MACCS2 input files. It is the staff's understanding that Attachment J was the basis for the PSEG MACCS2 input files.

The staff has reviewed the PSEG ESP MACCS2 input and output files in combination with the PSEG calc-file. The staff has found that only one of the above two EARLY

module input parameters have been activated in the PSEG severe accident analysis (see pages E.2-11 and E.2-12 in Attachment E.2 of the PSEG calc-file). However, both of the two EARLY module input parameters are activated in the Hope Creek license renewal MACCS2 input files (see pages J-46 and J-48 in Attachment J of the PSEG calc-file).

Reference:

U.S. Nuclear Regulatory Commission (NRC). 1986. "Safety Goals for the Operations of Nuclear Power Plants: Policy Statement; Replication". 51 FR 30028.