

PSEGSPeRAIPEm Resource

From: Chowdhury, Prosanta
Sent: Wednesday, July 17, 2013 1:51 PM
To: 'PSEGRAIResponses@pseg.com'
Cc: PSEGSPeRAIPEm Resource; 'James.Mallon@pseg.com'; 'David.Robillard@pseg.com'; Segala, John; Roach, Kevin; Clark, Phyllis; McLellan, Judith; Devlin, Stephanie; Seber, Dogan; Jackson, Diane; Karas, Rebecca
Subject: PSEG Site ESPA FINAL RAI 71 (eRAI 7142) SRP-02.05.02 (RGS2)
Attachments: PSEG Site ESPA Final RAI 71 (eRAI 7142).pdf

Please find attached RAI 71 (eRAI 7142) for the PSEG Site ESP Application. A draft of the RAI was provided to you on June 20, 2013. At your request, a clarification discussion on this RAI was held on July 15, 2013. As a result of the discussion, we understand that you have no further questions on this specific RAI, and therefore, we are issuing this RAI as final with no changes made to it.

The schedule we have established for review of your application assumes technically correct and complete responses within 30 calendar days of receipt of RAIs; however, you informed us via email on July 17, 2013, that instead of the usual 30 days to respond to this RAI, you would need 45 days, which means that the response will be due by August 30, 2013. After reviewing your request, we concluded that our preference would be to receive technically correct and complete response by August 23, 2013. If you could not meet either of these dates, it is expected that a date for receipt of this information will be provided to the staff within the 30-calendar day period so that the staff can assess how this information will impact the published schedule.

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

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Subject: PSEG Site ESPA FINAL RAI 71 (eRAI 7142) SRP-02.05.02 (RGS2)
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From: Chowdhury, Prosanta

Created By: Prosanta.Chowdhury@nrc.gov

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Options

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Request for Additional Information 71

Application Revision 2

FINAL

7/17/2013

PSEG Site ESP

PSEG Power LLC, PSEG Nuclear LLC

Docket No. 52-043

Review Section: 02.05.02 - Vibratory Ground Motion

Application Section: 2.5.2

QUESTIONS

02.05.02-11

Supplemental RAI:

In RAI 43, Question 02.05.02-5 (NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML11346A641), the NRC staff asked for an assessment of the adequacy of the EPRI-SOG seismic source model in light of the August 23, 2011, M5.7 Mineral, Virginia earthquake. After issuance of RAI 43, Question 02.05.02-5, the NRC staff issued RAI 61, Question 02.05.02-10 (ML12159A587), which asked the applicant for an assessment of potential impacts of the newly released "Central and Eastern United States Seismic Source Characterization for Nuclear Facilities (CEUS SSC)" model (NUREG-2115) on its site's seismic hazard calculations. In response to RAI 61, Question 02.05.02-10, the applicant chose to use the CEUS SSC model in its final seismic hazard analyses in lieu of using the EPRI-SOG seismic source model. The applicant detailed its use of the CEUS SSC model in its response to RAI 61, Question 02.05.02-10, which was submitted to the NRC on January 11, 2013 (ML130290089). The applicant's response was then incorporated into Revision 2 of the Early Site Permit Application (ESPA), Site Safety Analysis Report (SSAR), which was submitted to the NRC on March 27, 2013 (ML13098A975). ESPA, Revision 2, SSAR Section 2.5.2.4.2.1.1 and Figure 2.5.2-70 illustrate that the applicant assessed the entire seismicity catalogs' earthquake recurrence parameters. However, the assessment did not include any details regarding potential changes in earthquake recurrence rates in the vicinity of the earthquake's hypocenter and their potential impacts on the calculated hazard.

In compliance with 10 CFR 100.23, please assess the adequacy of the existing CEUS SSC model earthquake recurrence parameters in light of the August 23, 2011 M5.7 Mineral, Virginia earthquake with a specific focus on the potential recurrence rate changes in the vicinity of this earthquake and the potential effects on the seismic hazard calculated at the PSEG Site. Specifically, does the M5.8 Mineral, Virginia earthquake affect the published rates in the vicinity of the epicenter, and if so, do the changes impact the hazard at the PSEG site in any significant manner?

02.05.02-12

Supplemental RAI:

In RAI 61, Question 02.05.02-10 (ML12159A587), the NRC staff asked the applicant for an assessment of potential impacts of the newly released CEUS SSC model (NUREG-2115) on its site's seismic hazard calculations. In its response (ML12283A268), the applicant indicated that it replaced the EPRI-SOG models with the newer seismic source characterization model described in NUREG-2115 and re-calculated seismic hazard at the site. The staff noted that the applicant made some simplifications to the published models prior to conducting seismic hazard calculations. NUREG-2115 Chapter 9, "Use of the CEUS SSC Model in PSHA", details a few source simplification tests, but NUREG-2115 states that site-specific sensitivity studies should be conducted to confirm that similar simplifications are appropriate for use at other sites.

In compliance with 10 CFR 100.23, please describe any implemented simplifications, such as those applied to source rupture geometries, used for the PSEG CEUS SSC model analyses and provide justification for those simplifications.