

PSEGESPeRAIPEm Resource

From: Chowdhury, Prosanta
Sent: Tuesday, August 02, 2011 4:46 PM
To: 'PSEGRAIResponses@pseg.com'
Cc: PSEGESPeRAIPEm Resource; 'James.Mallon@pseg.com'; 'David.Robillard@pseg.com'; Colaccino, Joseph; Silvia, Andrea; Clark, Phyllis; McLellan, Judith; Quinlan, Kevin; Schaaf, Robert
Subject: PSEG Site ESPA DRAFT RAI 35 (eRAI 5845) SRP-02.03.05 (RSAC)
Attachments: PSEG Site ESPA Draft RAI 35 (eRAI 5845).doc

Please find attached DRAFT RAI No. 35 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
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From: Chowdhury, Prosanta

Created By: Prosanta.Chowdhury@nrc.gov

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Options

Priority: Standard

Return Notification: No

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Recipients Received:

Request for Additional Information No. 35

Application Revision 0

DRAFT

8/2/2011

PSEG Site ESP

PSEG Power LLC, PSEG Nuclear LLC

Docket No. 52-043

SRP Section: 02.03.05 - Long-Term Atmospheric Dispersion Estimates for Routine Releases

Application Section: Long-Term Atmospheric Dispersion Estimates for Routine Releases

QUESTIONS for Siting and Accident Conseq Branch (RSAC)

02.03.05-3

10 CFR 100.21(c)(1) requires that site atmospheric dispersion characteristics must be evaluated and dispersion parameters established such that radiological effluent release limits associated with normal operation from the type of facility proposed to be located at the site can be met for any individual located offsite. RG 1.111, Revision 1, states that spatial and temporal variations of airflow should be considered at sites along and near coasts with significant land-water boundary layer effects on airflow and sea-land breeze circulations. SSAR Section 2.3.2.2.1.2 describes the complex wind patterns at the PSEG site that are caused in part by Delaware Bay breezes and local shoreline breezes.

The staff notes that in the XOQDOQ input/output files that have been provided in an April 6, 2011, response (ML11111A075) to RAI 16, Question 02.03.05-1 (ML110950323), adjustments for the potential effects of land-water boundaries on airflow have not been addressed.

Update Section 2.3.5 of the SSAR to include the χ/Q and D/Q values that consider and account for the potential effects of land-water boundaries, or provide justification as to why this is not necessary for the PSEG site.

02.03.05-4

10 CFR 100.21(c)(1) requires that site atmospheric dispersion characteristics must be evaluated and dispersion parameters established such that radiological effluent release limits associated with normal operation from the type of facility proposed to be located at the site can be met for any individual located offsite. NUREG-0800, Section 2.3.5 states that the ESP site characteristics should include the maximum χ/Q and D/Q values calculated at the specific locations of potential receptors of interest.

SSAR Section 2.3.5.2 states that the site boundary χ/Q values were disregarded for sectors SE to NW (clockwise direction) due to the site boundary being bordered by the Delaware River.

Update Section 2.3.5 of the SSAR to include the χ/Q and D/Q values at the site boundary for all 16 radial directions, or provide a justification as to why this is not necessary for the PSEG site.

02.03.05-5

10 CFR 100.21(c)(1) requires that site atmospheric dispersion characteristics must be evaluated and dispersion parameters established such that radiological effluent release limits associated with normal operation from the type of facility proposed to be located at the site can be met for any individual located offsite.

SSAR Section 2.3.5.1 states that the downwind distances used to determine the χ/Q and D/Q values at each of the receptors of interest were calculated from the center of the power block area.

Update Section 2.3.5 of the SSAR to include a justification as to why a “power block envelope” encompassing all the potential normal operation release pathways was not used for determining the distances to the receptors of interest.