PSEGESPeRAIPEm Resource

From: Chowdhury, Prosanta
Sent: Friday, February 03, 2012 2:14 PM
To: 'PSEGRAIResponses@pseg.com'
Cc: PSEGESPeRAIPEm Resource; 'James.Mallon@pseg.com'; 'David.Robillard@pseg.com'; Segala, John; Silvia, Andrea; Roach, Kevin; Clark, Phyllis; McLellan, Judith; Tammara, Seshagiri; Schaaf, Robert
Subject: PSEG Site ESPA DRAFT RAI 52 (eRAI 6285) SRP-02.02.03 (RPAC-RSAC)
Attachments: PSEG Site ESPA Draft RAI 52 (eRAI 6285).doc

Please find attached DRAFT RAI No. 52 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: 101

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Subject: PSEG Site ESPA DRAFT RAI 52 (eRAI 6285) SRP-02.02.03 (RPAC-RSAC)
Sent Date: 2/3/2012 2:14:03 PM
Received Date: 2/3/2012 2:14:05 PM
From: Chowdhury, Prosanta

Created By: Prosanta.Chowdhury@nrc.gov

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MESSAGE	764	2/3/2012 2:14:05 PM
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Options
Priority: Standard
Return Notification: No
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Request for Additional Information No. 52

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)

02.02.03-5

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.

The applicant performed an evaluation of explosions in SSAR Section 2.2.3.2.2, and flammable vapor cloud explosions in SSAR Section 2.2.3.2.3, and presented the results in SSAR Tables 2.2-18 and 2.2-19, respectively.

a) The hydrogen considered in the analyses is not listed either in SSAR Table 2.2-2a or 2.2-2b. SSAR Table 2.2-3 indicates the location of hydrogen storage as “facility wide;” however, SSAR Tables 2.2-18 and 2.2-19 provide a distance to safety-related buildings of 0.44 miles for hydrogen. Please provide clarification regarding hydrogen storage on the site and its relationship to the distance to safety-related structures provided in SSAR Tables 2.2-18 and 2.2-19.

b) The applicant calculated a safe distance of 0.24 mile for the hydrogen vapor cloud explosion; however, staff confirmatory analysis for the hydrogen vapor cloud explosion resulted in a higher value than that of 0.24 mile. Please provide the assumptions, data, and methodology used in calculating the minimum safe distance of 0.24 mile to conclude that it is within the distance of the applicant-identified safety related buildings of 0.44 mile.

The staff notes that for propane, the applicant calculated a safe distance due to a flammable vapor cloud explosion of 0.814 mile, while the staff confirmatory analysis calculated a safe distance of 0.31 mile. However, the staff notes that for propane, both calculated distances do not exceed the distance of 3 miles to safety related buildings.