



ND-2012-0012
February 24, 2012

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: **PSEG Early Site Permit Application**
Docket No. 52-043
Response to Request for Additional Information, RAI No. 49, Site
Location and Description

- References:
- 1) PSEG Power, LLC letter to USNRC, Application for Early Site Permit for the PSEG Site, dated May 25, 2010
 - 2) RAI No. 49, SRP Section: 02.01.01 – Site Location and Description, dated February 07, 2012 (eRAI 6249)
 - 3) PSEG Power, LLC letter to USNRC, ND-2011-0059, Response to Request for Additional Information, RAI No. 35, Long-Term Atmospheric Dispersion Estimates for Routine Releases, dated September 9, 2011

The purpose of this letter is to respond to the request for additional information (RAI) identified in Reference 2 above. This RAI addresses the Site Location and Description, as described in Subsection 2.1.1 of the Site Safety Analysis Report (SSAR), as submitted in Part 2 of the PSEG Site Early Site Permit Application, Revision 0.

Enclosure 1 provides our response for RAI No. 49, Question No. 02.01.01-3. Our response to RAI No. 49, Question No. 02.01.01-3 will require a revision to the SSAR. Enclosure 2 provides the proposed revision to the SSAR. Enclosure 3 includes the new regulatory commitment established in this submittal.

If any additional information is needed, please contact David Robillard, PSEG Nuclear Development Licensing Engineer, at (856) 339-7914.

D079
MRO

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 24th day of February, 2012.

Sincerely,



James Mallon
Early Site Permit Manager
Nuclear Development
PSEG Power, LLC

Enclosure 1: Response to NRC Request for Additional Information, RAI No. 49, Question No. 02.01.01-3, SRP Section: 02.01.01 – Site Location and Description

Enclosure 2: Proposed Revisions Part 2 - Site Safety Analysis Report (SSAR), Subsection 2.1.1, Site Location and Description

Enclosure 3: Summary of Regulatory Commitments

cc: USNRC Project Manager, Division of New Reactor Licensing, PSEG Site (w/enclosures)
USNRC, Environmental Project Manager, Division of Site and Environmental Reviews (w/enclosures)
USNRC Region I, Regional Administrator (w/enclosures)

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ENCLOSURE 1

RESPONSE to RAI No. 49

QUESTION No. 02.01.01-3

Response to RAI No. 49, Question 02.01.01-3:

In Reference 2, the NRC staff asked PSEG for information regarding the Site Location and Description, as described in Section 2.1.1 of the Site Safety Analysis Report. The specific request was:

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 Subsection 2.1.1.3 addresses Boundaries for Establishing Effluent Release Limits. It is stated that the minimum distance from the center point to the site property line is 872 feet in the west direction. It implies that it is one of the site boundary receptor locations considered for dose evaluation. However, based on the response to the RAI No. 35, Question 02.03.05-04, although X/Q and D/Q values have been calculated for all 16 radial directions at the site boundary (including the site boundary location receptor addressed above at 872 feet in the west direction), sectors adjacent to the Delaware River (sectors SE to NW in clockwise direction) are not considered in the dose evaluations. Therefore, the applicant is requested to update the information in SSAR Subsection 2.1.1.3 for clarity and consistency.

PSEG Response to NRC RAI:

SSAR Subsection 2.1.1.3 will be updated to clarify and justify that sectors adjacent to the Delaware River are not considered in the dose evaluations (sectors SE to NW in clockwise direction) as discussed in the response to RAI No. 35, Question 02.03.05-4 (Reference 3).

Associated PSEG Site ESP Application Revisions:

SSAR Subsection 2.1.1.3 will be updated as specified in Enclosure 2 of this document.

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ENCLOSURE 2

**Proposed Revisions
Part 2 – Site Safety Analysis Report (SSAR)**

Subsection 2.1.1, Site Location and Description

Marked Up Pages

2.1-2

**PSEG Site
ESP Application
Part 2, Site Safety Analysis Report**

Latitude and Longitude (NAD83)

39° 28' 23.744" North
75° 32' 24.332" West

Universal Transverse Mercator Coordinates (NAD83, Zone 18)

N14335392.324
E1488007.170

Figure 1.2-3 shows the new plant's proposed EAB, which is a circle at least 600 meters (1968 feet) from the edge of the power block area in all directions. A specific reactor design has not been selected, therefore Figure 1.2-3 does not show the location and orientation of principal plant structures for the new plant. It shows the boundaries of the power block area and theoretical plant center point within the power block area. The distance from these features to the site boundary and the proposed EAB can be scaled from Figure 1.2-3.

As shown in Figure 1.2-3, the proposed EAB extends beyond the PSEG Site property line to the west (into the Delaware River) and to the north and northeast. The total area encompassed by the EAB is 743 ac., of which 224 ac. is in the Delaware River and 288 ac. is in land currently owned by PSEG. An additional 85 ac. of land will be owned when PSEG completes property acquisition from the USACE as discussed in Subsection 2.1.1.1. The land within the EAB that will not be owned by PSEG consists of 146 ac. owned by the USACE. No public roads, railroads, or structures other than existing PSEG power plant facilities are located within any part of the EAB.

2.1.1.3 Boundaries for Establishing Effluent Release Limits

~~The land boundary, on which technical specification limits for release of gaseous radioactive effluents are based, is the PSEG Site property line shown in Figure 1.2-3. The distance from the new plant center point to the property line in any direction can be scaled from Figure 1.2-3. The minimum distance from the center point to the property line is 872 feet in the west direction.~~

2.1.2 EXCLUSION AREA AUTHORITY AND CONTROL

Replace with "Insert A"
per Question 02.01.01-3.

2.1.2.1 Authority

As discussed in Subsection 2.1.1.2, PSEG owns 288 ac. of the land within the proposed EAB for the new plant. PSEG has fee simple ownership, including mineral rights, of this land. In addition, PSEG is working with the USACE to develop an agreement in principle to acquire 85 ac. of land that will be within the proposed EAB. Therefore, when property acquisition is complete PSEG will have ownership of 373 ac. of land within the proposed EAB.

The only land area within the proposed EAB that will not be owned by PSEG is 146 ac. located to the north and northeast of the PSEG property line. This land is controlled by the USACE. PSEG will obtain legal authority from the USACE prior to the issuance of the COL that will either allow PSEG and its surrogates to control activities on this land or obtain an agreement with the USACE that provides assurances that the USACE will control activities and access if required. The agreement will specify that no residences are allowed within the Exclusion Area. Some

Rev. 0

2.1-2

RAI No. 49, Question 02.01.01-3 INSERT A:

The land boundary, on which technical specification limits for release of gaseous radioactive effluents are based, is the PSEG Site property line shown in Figure 1.2-3. However, the χ/Q and D/Q values (Table 2.3-27) at the site boundary, adjacent to the Delaware River (sectors SE to NW in clockwise direction), are not considered in the associated analyses for radiological exposure due to routine gaseous effluents. This is acceptable because of the negligible time any individual is expected to spend in this area during any one-year period. The χ/Q and D/Q values that are considered in the associated analyses for radiological exposure due to the routine gaseous effluents are those in sectors NNW to ESE (clockwise direction). The distance from the new plant center point to the property line in any direction can be scaled from Figure 1.2-3. The minimum distance from the center point to the property line is 872 feet in the west direction.

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ENCLOSURE 3

Summary of Regulatory Commitments

ENCLOSURE 3

SUMMARY OF REGULATORY COMMITMENTS

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITTED DATE	COMMITMENT TYPE	
		ONE-TIME ACTION (Yes/No)	Programmatic (Yes/No)
PSEG will revise SSAR Subsection 2.1.1.3 to incorporate the changes in Enclosure 2 in response to NRC RAI No. 49	This revision will be included in the next update of the PSEG Site ESP application SSAR.	Yes	No