



ND-2011-0035  
June 3, 2011

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. 28, Gaseous Waste Management System**

References: 1) PSEG Power, LLC letter to USNRC, Application for Early Site Permit for the PSEG Site, dated May 25, 2010  
2) RAI No. 28, SRP Section: 11.03 - Gaseous Waste Management System, dated May 16, 2011 (eRAI 5692)  
3) PSEG Power, LLC letter to USNRC, Letter #ND-2011-0010, Response to Request for Additional Information, RAI No. 11, Gaseous Waste Management System, dated March 10, 2011  
4) PSEG Power, LLC Letter to USNRC, Letter #ND-2011-0018, Response to Request for Additional Information, RAI No. 18, Gaseous Waste Management System, dated April 12, 2011

The purpose of this letter is to respond to the request for additional information (RAI) identified in Reference 2 above. This RAI addresses Gaseous Waste Management System, as described in Section 11.3 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. 28, Question No. 11.03-5. Our response to RAI No. 28, Question No. 11.03-5, will not result in a revision to the SSAR. No new commitments are created by the response to this RAI.

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

D079  
NR0

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 3rd day of June, 2011.

Sincerely,

A handwritten signature in black ink, appearing to read "David P. Lewis". The signature is fluid and cursive, with the first name "David" being the most prominent.

David P. Lewis  
Director, Nuclear Development  
PSEG Power, LLC

Enclosure 1: Response to NRC Request for Additional Information, RAI No. 28,  
Question No. 11.03-5, SRP Section: 11.03 - Gaseous Waste Management  
System

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)

**PSEG Letter ND-2011-0035, dated June 3, 2011**

**ENCLOSURE 1**

**RESPONSE to RAI No. 28**

**QUESTION 11.03-5**

**Response to RAI No. 28, Question 11.03-5:**

In Reference 2, the NRC staff asked PSEG for information regarding Gaseous Waste Management System, as described in Section 11.3 of the Site Safety Analysis Report. The specific request was:

*40 CFR 190 and 10 CFR 20.1301(e) require a summation of all liquid and gaseous effluent and direct doses from all fuel facilities on site to ensure compliance with the EPA total site dose requirements.*

**Follow up to RAI 11 (eRAI 5424):** The response to RAI 11 (eRAI 5424), Question

*11.03-2 has misleading information. The new data provided replacing incorrect data is again incorrect in Table 011-1 of the applicant's response. The data in the new Table 11.3-9 however, is correct. The total Total Body dose in these two tables are not the same. Table 011-1 indicates this value as 3.68E-2 mrem/year, and Table 11.3-9 lists this value as 3.68E-1 mrem/year. The correct mathematical mrem/year total is 0.36876 or 3.69E-1. This number should be listed for both Table 011-1 and Table 11.3-9. Please review this discrepancy and ensure the tables agree.*

**PSEG Response to NRC RAI:**

The response to RAI No. 11 (Reference 3), Question 11.03-2, contains a typographical error in Table 011-1 for the overall total body dose. The value presented (3.68E-02) should be 3.68E-01. The provided markup in the response for SSAR Table 11.3-9 accurately presented this parameter as 3.68E-01 mrem/yr. Rounding of the intermediate results causes a slightly different value from the value contained in Reference 2 (3.69E-01 mrem/yr). The total body dose of 3.68E-01 mrem/yr was based on a calculation in which the dose contribution from the new dual unit was calculated separately ( $0.332 \text{ mrem/yr} + 0.0314 \text{ mrem/yr} = 0.3634 \text{ mrem/yr}$ ), rounded to three significant digits (0.363 mrem/yr), and then added to the dose from the existing plants ( $0.363 \text{ mrem/yr} + 0.00536 \text{ mrem/yr} = 0.36836 \approx 0.368 \text{ mrem/yr}$ ).

Note that the gaseous effluent doses in SSAR Table 11.3-9 have been updated in the response to RAI 18 (Reference 4). This update also affects the overall total body dose. Therefore, the response to RAI 18 supersedes the response provided in RAI No. 11 and includes the most recent update to SSAR Table 11.3-9.

**Associated PSEG Site ESP Application Revisions:**

No changes to the SSAR are required as a result of this RAI response.