



ND-2012-0025
March 30, 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. 58, Exclusion
Area Authority and Control

- References: 1) PSEG Power, LLC letter to USNRC, Application for Early Site Permit for the PSEG Site, dated May 25, 2010
- 2) RAI No. 58, SRP Section: 02.01.02 – Exclusion Area Authority and Control, dated March 1, 2012 (eRAI 6250)

The purpose of this letter is to respond to the request for additional information (RAI) identified in Reference 2 above. This RAI addresses Exclusion Area Authority and Control, as described in Subsection 2.1.2 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. 58, Question Nos. 02.01.02-4, 02.01.02-5, and 02.01.02-6. Enclosure 2 includes the revisions to SSAR Subsection 2.1.2 resulting from our response to RAI No. 58, Question Nos. 02.01.02-4, 02.01.02-5, and 02.01.02-6. Enclosure 3 includes the new regulatory commitments established in this submittal.

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

D 079
NRD

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 30th day of March, 2012.

Sincerely,



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

- Enclosure 1: Response to NRC Request for Additional Information, RAI No. 58, Question Nos. 02.01.02-4, 02.01.02-5, and 02.01.02-6, SRP Section: 02.01.02 – Exclusion Area Authority and Control
- Enclosure 2: Proposed Revisions, Part 2 – Site Safety Analysis Report (SSAR), Subsection 2.1.2 - Exclusion Area Authority and Control
- 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)

PSEG Letter ND-2012-0025, dated March 30, 2012

ENCLOSURE 1

RESPONSE to RAI No. 58

QUESTION Nos.

02.01.02-4

02.01.02-5

02.01.02-6

Response to RAI No. 58, Question 02.01.02-4:

In Reference 2, the NRC staff asked PSEG for information regarding the Exclusion Area Authority and Control, as described in Subsection 2.1.2 of the Site Safety Analysis Report. The specific request for Question 02.01.02-4 was:

The staff reviewed the applicant's responses to RAI 10, Question 02.01.02-1, for the PSEG Site Early Site Permit Application (PSEG Site ESPA), Site Safety Analysis Report (SSAR), submitted on March 22, 2011 (ML110880442), regarding various aspects of the Exclusion Area Boundary (EAB), including the discussion of activities unrelated to plant operation and the authority to control activities within the EAB.

The applicant's response contains clarifications as stated below:

- Item (c) – of the difference, if any, between the phrases “controlled by the USACE” and “owned by the USACE” (as used in SSAR Subsections 2.1.2.1, 2.1.2.2, and 2.1.1.2), and of the orientation of 146 acres of land within the EAB with respect to the existing and proposed PSEG site property; and*
- Item (d) – of the description of public use of the 146 acres of U.S. Army Corps of Engineers (USACE)-owned or –controlled land within the EAB for recreational purposes, where such uses or activities may take place, and ingress to and egress from this area in relation to the expected time for evacuation if it were to become necessary.*

Similarly, the applicant's response to Items (a), (b), (e), and (f) of RAI 10, Question 02.01.02-1, contains the following clarification:

- Item (a) – of an area, designated as “Dike Area,” shown in SSAR Figure 1.2-3 (Site Utilization Plan) with respect to its use by the USACE for disposal of dredged material, points of access to that area relative to the EAB, and the relationship of that area to where cooling towers and a portion of the power block for the proposed facility are also to be located;*
- Item (b) – of the number and kinds of persons engaged in the USACE's disposal of dredged materials during the construction and operational phases of the proposed facility and their locations with respect to the EAB, and the frequency and length of time that these activities are expected to occur;*
- Item (e) – for an indication of the number of persons that may be engaged in hunting, fishing, or other recreational activities on USACE-owned or –controlled land within the EAB and when these activities are expected to occur; and*
- Item (f) – of the USACE's and the U.S. Coast Guard's responsibilities for evacuation of the land within the EAB on which public use for recreational purposes may occur and, in particular, identification of the other unspecified “agencies” with similar responsibilities.*

However, the applicant has also identified numerous actions that must occur and provisions that are yet to be incorporated into various agreements with federal and state agencies (not only in the responses to the questions in RAI 10, Question 02.01.02-1, but also in RAI 10, Questions 02.01.02-2 and 02.01.02-3) before it can demonstrate Exclusion Area authority and control consistent with 10 CFR 100.3. Therefore, pursuant to NUREG-0800, SRP Section 2.1.2, Subsection II (Acceptance Criteria), SRP Acceptance Criteria 1, 2, and 3, the staff believes that the narrative discussions in the responses to Items (a), (b), (e), and (f) of RAI 10, Question 02.01.02-1, should be integrated into the appropriate subsections under SSAR Section 2.1.2. This information will help the staff to evaluate whether the applicant will acquire the appropriate legal authority and control over the designated Exclusion Area, including the exclusion or removal of personnel or property from the EAB in the event of an accident.

PSEG Response to NRC RAI:

As requested, substantive portions of the responses to RAI No. 10, Question 02.01.02-1, items (a), (b), (e) and (f) will be integrated into SSAR Subsection 2.1.2.

Associated PSEG Site ESP Application Revisions:

Enclosure 2 includes a markup of the proposed revisions to SSAR Subsection 2.1.2.

Response to RAI No. 58, Question 02.01.02-5:

In Reference 2, the specific request for Question 02.01.02-5 was:

The staff reviewed the applicant's responses to RAI 10, Question 02.01.02-2 for the PSEG Site Early Site Permit Application (PSEG Site ESPA), Site Safety Analysis Report (SSAR), submitted on March 22, 2011 (ML110880442), regarding potential activities unrelated to plant operation in that portion of the Delaware River within the Exclusion Area Boundary (EAB).

The applicant's response to Item (a) of RAI 10, Question 02.01.02-2, contains explanation regarding the requested reconciliation of the difference, if any, between the phrases "maritime exclusion zone" (as used in SSAR Subsection 2.1.2.2) and "security zone" as designated in 33 CFR Part 165, Subpart F, Section 165.553 for the waters of the Delaware River in the vicinity of the existing Salem and Hope Creek Generation Stations.

In addition, the applicant's responses to Items (b) and (c) of RAI 10, Question 02.01.02-2, contain information regarding the requested:

- clarification in Item (b) of SSAR Figure 1.2-3 (or the addition of other figure(s)) to illustrate the area(s), relative to the EAB, that are expected to be covered by the existing maritime exclusion zone and/or the current security zone (as mandated by regulation), and the Applicant's planned extension of the maritime exclusion zone and/or security zone to be adjacent to the new plant location; and*
- explanation in Item (c), of the plans (including the timelines for doing so relative to the project schedule) for agency interaction regarding establishment of the extended "maritime exclusion zone" and for promulgating revisions to any associated regulations for an extension to the "security zone" currently specified at 33 CFR Part 165, Subpart F, Section 165.553;*

and the applicant's plan to defer development of the security plan for the proposed facility until the combined license application stage after a reactor technology has been selected.

In addition to the action items indicated above, the responses to the questions in RAI 10, Questions 02.01.02-1 and 02.01.02-3, identify other actions that must occur and provisions that are yet to be incorporated into various agreements with federal and state agencies before the applicant can demonstrate authority and control over the Exclusion Area consistent with 10 CFR 100.3. Therefore, pursuant to NUREG-0800, SRP Section 2.1.2, Subsection II (Acceptance Criteria), SRP Acceptance Criteria 2 and 3, the staff believes that the narrative discussions in the responses to Items (a), (b), and (c) of RAI 10, Question 02.01.02-2, should be integrated into the SSAR Subsection 2.1.2.2. This information will help the staff to evaluate whether the applicant will acquire the appropriate legal authority and control over the designated Exclusion Area,

including the exclusion or removal of personnel or property from the EAB in the event of an accident.

PSEG Response to NRC RAI:

As requested, substantive portions of the responses to RAI No. 10, Question 02.01.02-2, items (a), (b) and (c) will be integrated into SSAR Subsection 2.1.2.

Associated PSEG Site ESP Application Revisions:

Enclosure 2 includes a markup of the proposed revisions to SSAR Subsection 2.1.2.

Response to RAI No. 58, Question 02.01.02-6:

In Reference 2, the specific request for Question 02.01.02-6 was:

The staff reviewed the applicant's response to RAI 10, Question 02.01.02-3, for the PSEG Site Early Site Permit Application (PSEG Site ESPA) Site Safety Analysis Report (SSAR), submitted on March 22, 2011 (ML110880442), regarding whether the planned acquisition of an additional 85 acres of land within the Exclusion Area Boundary (EAB) from the U.S. Army Corps of Engineers (USACE) will include the purchase of the associated mineral rights. The applicant stated in its response, that the "land will be acquired from the USACE by PSEG with the same ownership characteristics as the existing property, including mineral rights."

In addition to this action item, the responses to the questions in RAI 10, Questions 02.01.02-1 and 02.01.02-2, identify other actions that must occur (including the promulgation of regulations under 33 CFR Part 165, Subpart F) and provisions that are yet to be incorporated into various agreements with federal and state agencies before the applicant can demonstrate authority and control over the Exclusion Area consistent with 10 CFR 100.3. Therefore, pursuant to NUREG-0800, SRP Section 2.1.2, Subsection II (Acceptance Criteria), SRP Acceptance Criterion 1 (Establishment of Authority), the staff believes that SSAR Subsection 2.1.2.1 should clearly indicate that mineral rights will be conveyed as part of this 85-acre land purchase. This information will help the staff to evaluate whether the applicant will acquire the appropriate legal authority and control over the designated Exclusion Area, including the exclusion or removal of personnel or property from the EAB in the event of an accident.

PSEG Response to NRC RAI:

As requested, substantive portions of the response to RAI No. 10, Question 02.01.02-3 will be integrated into SSAR Subsection 2.1.2.

Associated PSEG Site ESP Application Revisions:

Enclosure 2 includes a markup of the proposed revisions to SSAR Subsection 2.1.2.

PSEG Letter ND-2012-0025, dated March 30, 2012

ENCLOSURE 2

Proposed Revisions

**Part 2 – Site Safety Analysis Report (SSAR)
Subsection 2.1.2 - Exclusion Area Authority and Control**

Marked-up Pages

2.1-2

2.1-3

**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

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

ADD
", including mineral rights"
RAI No. 58, Question
02.01.02-6

Rev. 0

2.1-2

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

public uses of the land may be allowed, but PSEG will acquire the ability to remove and subsequently exclude people in a timely manner in the event of an accident.

ADD "INSERT 1"
RAI No. 58,
Question 02.01.02-4

Under the existing PSEG Site Radiological Emergency Response Plan, the U.S. Coast Guard (USCG) is responsible for warning people in boats, assisting in traffic control of boats, and notifying persons participating in swimming, fishing, and boating on the Delaware River in the site vicinity in the event of a radiological emergency. This agreement will be extended to address all open water areas within the proposed EAB for the new plant.

ADD "INSERT 2"
RAI No. 58,
Question 02.01.02-5

2.1.2.2 Control of Activities Unrelated to Plant Operation

The part of the proposed EAB that includes the Delaware River is sometimes used for boating, swimming, and/or fishing. ~~The existing PSEG Site Security Plan provides for a maritime exclusion zone around the existing power plant facilities. This exclusion zone will be extended to be adjacent to the new plant location, and the enforcement provisions of the existing Site Security Plan will be implemented.~~ A portion of the proposed EAB will be within this extended exclusion zone. Beyond the exclusion zone, no additional limitations are proposed for legal public use activities, maximum number of people, or maximum frequency of use in the open water portions of the EAB.

ADD "INSERT 3"
RAI No. 58,
Question 02.01.02-5

The land area of the proposed EAB includes a confined disposal facility (CDF) used by the USACE for the disposal of dredged material. ~~PSEG will develop notification provisions related to USACE use of the CDF that is within the EAB.~~

The land area of the proposed EAB also includes land that is owned by the USACE, which is open to the public for recreational use including hunting and fishing during the respective seasons. Access to this land is by water. The physical limitations on both access and use result in infrequent use. PSEG will establish provisions for evacuation of this land in the agreements with the USACE, USCG, or other agencies.

Salem and Hope Creek have provisions to notify people in the EAB of the need to evacuate in an emergency. This includes sirens, plant page, and an agreement with the U.S. Coast Guard. Provisions will be established for the new plant similar to that of Salem and Hope Creek Generating Stations. These provisions provide reasonable assurance that the Exclusion Area can be evacuated in a manner that prevents radiation exposure in excess of guideline values.

2.1.2.3 Arrangements for Traffic Control

As discussed in Subsection 2.1.2.1, a small part of the Delaware River is within the proposed Exclusion Area, and the USCG is responsible for controlling traffic on the Delaware River in the event of an emergency. No other arrangements for traffic control are required, because no public roads, railways, or other waterways traverse the proposed Exclusion Area.

2.1.2.4 Abandonment or Relocation of Roads

There are no public roads to be abandoned or relocated in the proposed Exclusion Area.

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

**ADD "146 acres of"
RAI No. 58,
Question 02.01.02-4**

public uses of the land may be allowed, but PSEG will acquire the ability subsequently exclude people in a timely manner in the event of an accident.

REPLACE WITH:

The land area of the proposed EAB includes land that is owned by the federal government and controlled by the USACE. The USACE does not officially permit recreational use of this land; however, there are no physical barriers to prevent access. In the context of the EAB, PSEG considers the land to be accessible by the public for recreational use such as hunting and fishing during the respective seasons. There are no pre-established features (e.g. trails or launches) to enable access to this undeveloped land. Unauthorized recreational access to this land is by water via the Delaware River or, in a limited capacity, coastal salt marshes. The physical limitations on both access and use result in infrequent use. PSEG will establish provisions for evacuation of this land in the agreements with the USACE, USCG, or other agencies.

public use activities, maximum number of people, or maximum frequency of use in the open water portions of the EAB.

The land area of the proposed EAB includes a confined disposal facility (CDF) used by the USACE for the disposal of dredged material. PSEG will develop notification provisions related to USACE use of the CDF that is within the EAB.

~~The land area of the proposed EAB also includes land that is owned by the USACE, which is open to the public for recreational use including hunting and fishing during the respective seasons. Access to this land is by water. The physical limitations on both access and use result in infrequent use. PSEG will establish provisions for evacuation of this land in the agreements with the USACE, USCG, or other agencies.~~

Salem and Hope Creek have provisions to notify people in the EAB of the need to evacuate in an emergency. This includes sirens, plant page, and an agreement with the U.S. Coast Guard. Provisions will be established for the new plant similar to that of Salem and Hope Creek Generating Stations. These provisions provide reasonable assurance that the Exclusion Area can be evacuated in a manner that prevents radiation exposure in excess of guideline values.

2.1.2.3 Arrangements for Traffic Control

As discussed in Subsection 2.1.2.1, a small part of the Delaware River is within the proposed Exclusion Area, and the USCG is responsible for controlling traffic on the Delaware River in the event of an emergency. No other arrangements for traffic control are required, because no public roads, railways, or other waterways traverse the proposed Exclusion Area.

2.1.2.4 Abandonment or Relocation of Roads

There are no public roads to be abandoned or relocated in the proposed Exclusion Area.

RAI No. 10
Question 02.01.02-1(c) and (d)

2.1-3

Rev. 0

RAI No. 58, Question 02.01.02-4, Insert 1

The USACE and USCG are the two primary agencies who interface with PSEG in establishing the control of the EAB. The USCG establishes control over the Delaware River portion of the EAB, while PSEG or the USACE controls the land area associated with the EAB that is not on PSEG's property. Other agencies, such as state and local police, fire departments, state and county emergency management agencies, etc., are active in the event of an Emergency Response situation and can be called upon to support the situation. Details of the Emergency Plan, including roles and responsibilities, are included in Part 5 of the ESPA. Emergency Response Support and Resources are presented in Section 4 of the Emergency Plan. Certification Letters and Memoranda of Understanding with offsite support agencies are presented in Attachments 2 and 3, respectively, of the Emergency Plan.

RAI No. 58, Question 02.01.02-5, Insert 2

or "security zone" as described in 33 CFR Part 165, Subpart F, Section 165.553 around the existing power plant facilities. As part of developing the Site Security Plan, PSEG and the USCG will establish the specific boundaries and enforcement provisions of the extended maritime exclusion zone, and promulgate revisions to associated regulations regarding an extension to the "security zone" currently specified at 33 CFR Part 165, Subpart F, Section 165.553.

RAI No. 58, Question 02.01.02-4, Insert 3

The CDF currently stretches into the 85 acre parcel of land that PSEG intends to acquire from the USACE. After the land is acquired, this 85 acre parcel of land will be PSEG property and no longer used as a CDF, because structures associated with the power block and cooling towers will occupy this land. The northern portion of the CDF (labeled as Laydown and Batch Plant on Figure 1.2-3) will be returned to the USACE after construction and potentially could continue to be used by the USACE as a CDF for dredge spoils. PSEG will develop notification provisions related to USACE use of the CDF that is within the EAB.

Access to the CDF by land is via the PSEG property from the existing site access road or the proposed causeway as shown on Figure 1.2-3. PSEG will allow USACE personnel vehicular access to the CDF north of the proposed site. During past usage of the CDF, access by water was generally made at the northern tip of the CDF, at a location outside of the EAB.

The USACE does not have a defined schedule for disposal of spoils in the CDF, nor do they delineate the number or kinds of persons who are engaged in the activity, the location of those persons, or the length of time the activity occurs. However, based on typical dredge spoils disposal activities conducted by the USACE at other sites, approximately five or less people would be present within the CDF during the dredging operation. A USACE representative inspects the CDF annually by traveling through the PSEG Site. Activities associated with the USACE CDF occur infrequently, and PSEG would maintain awareness of the CDF activities ongoing in the vicinity of the site.

PSEG Letter ND-2012-0025, dated March 30, 2012

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 2.1.2 to incorporate the changes in Enclosure 2 in response to NRC RAI No. 58, Question Nos. 02.01.02-4, 02.01.02-5, and 02.01.02-6.	This revision will be included in a future update of the PSEG ESP application.	Yes	No