



ND-2013-0004  
March 7, 2013

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, No. Env-12S, ESP EIS**  
**6.0 – Fuel Cycle, Transportation, and Decommissioning**

- References: 1) PSEG Power, LLC Letter No. ND-2012-0031 to USNRC, Submittal of Revision 1 of the Early Site Permit Application for the PSEG Site, dated May 21, 2012
- 2) Env-12S, Review Section: ESP EIS 6.0 – Fuel Cycle, Transportation, and Decommissioning, dated February 05, 2013 (eRAI 7003)

The purpose of this letter is to respond to the request for additional information (RAI) identified in Reference 2 above. This RAI addresses Question Nos. ESP EIS 6.0-11 through ESP EIS 6.0-13 for the Environmental Report (ER), as submitted in Part 3 of the PSEG Site Early Site Permit Application, Revision 1.

Enclosure 1 provides our response for RAI No. Env-12S, Question Nos. ESP EIS 6.0-11 through ESP EIS 6.0-13 (Env-12S-1, Env-12S-2, and Env-12S-3).

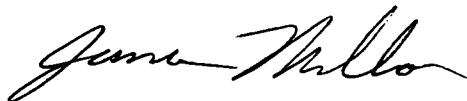
Enclosure 2 includes the revisions to the ER resulting from our response to RAI No. Env-12S and the electronic files requested in RAI Env-12S, Question No. ESP EIS 6.0-13.

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

DO79  
NRO

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 7th day of March, 2013.

Sincerely,



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

- Enclosure 1: Response to NRC Request for Additional Information, RAI No. Env-12S, Question Nos. ESP EIS 6.0-11 through ESP EIS 6.0-13 (Env-12S-1, Env-12S-2, and Env-12S-3), Review Section: ESP EIS 6.0 - Fuel Cycle, Transportation, and Decommissioning
- Enclosure 2: CD-ROM containing:
- Proposed revisions, Part 3 – Environmental Report (ER)
  - Electronic files requested in RAI Env-12S, Question ESP EIS 6.0-13

cc: USNRC Project Manager, Division of New Reactor Licensing, PSEG Site (w/enclosures)  
USNRC Environmental Project Manager, Division of New Reactor Licensing (w/enclosures)  
USNRC Region I, Regional Administrator (w/enclosures)  
Oak Ridge National Laboratory (w/enclosures)

**PSEG Letter ND-2012-0004, dated March 7, 2013**

**ENCLOSURE 1**

**RESPONSE to RAI No. Env-12S**

**QUESTION Nos.**

**ESP EIS 6.0-11 (Env-12S-1)**

**ESP EIS 6.0-12 (Env-12S-2)**

**ESP EIS 6.0-13 (Env-12S-3)**

**Response to RAI No. Env-12S, Question ESP EIS 6.0-11:**

In Reference 2, the NRC staff asked PSEG for information regarding Transportation of Radioactive Materials, as described in Subsection 5.7.2 of the Environmental Report. The specific request was:

*Env-12S-1 (rTR-08S): Provide a detailed analysis for staff review of the number of annual radioactive waste, or radwaste, shipments for each reactor design being considered in the PSEG ESP application. As part of this analysis, resolve inconsistencies between the number of radwaste shipments in RAI response Table ESP EIS 6.0-5-2 and Table 5.7-7 of the ER.*

*Note: See also RAI ENV-12S-2.*

*Supporting Information: The response to RAI ENV-12, Question No. ESP EIS 6.0-5 (PSEG letter ND-2012-0071 dated Oct. 19, 2012, Accession No. ML12296A772) provides the annual number of shipments of radwaste using a container volume of 2.34 m<sup>3</sup>/shipment and normalized to 880 MW(e). These radwaste shipment numbers are contained in Table ESP EIS 6.0-5-2 (Normalized Number of Shipments).*

*These shipment numbers, however, are not consistent with the radwaste volumes and shipments contained in Table 5.7-7 (Radwaste Shipment Data) in the ER. For example, for the ABWR, Table 5.7-7 lists an annual radwaste volume of 165 m<sup>3</sup>. Using a container volume of 2.34 m<sup>3</sup>/shipment and normalizing to 880 MW(e) should yield about 43 shipments, while Table ESP EIS 6.0-5-2 lists 15.8 shipments.*

*For the U.S. EPR, Table 5.7-7 lists an annual radwaste volume of 187.4 m<sup>3</sup>. Using a container volume of 2.34 m<sup>3</sup>/shipment and normalizing to 880 MW(e) should yield about 45.7 shipments, while Table ESP EIS 6.0-5-2 lists 7.5 shipments.*

*For the US-APWR, Table 5.7-7 lists an annual radwaste volume of 432.7 m<sup>3</sup>. Using a container volume of 2.34 m<sup>3</sup>/shipment and normalizing to 880 MW(e) should yield about 105.6 shipments, while Table ESP EIS 6.0-5-2 lists 13.5 shipments.*

## **PSEG Response to NRC RAI:**

For comparison to the values in 10 CFR 51.52 Table S-4, the number of radwaste shipments in ER Table 5.7-7 are normalized to the net electric generation and radwaste shipping container volume used for the reference reactor analyzed in WASH-1238. For the normalization, the waste volumes for each reactor technology are first normalized to the net electric generation of the reference reactor by multiplying the waste volume by the net electric generation normalization factor. The net electric generation normalization factors for each reactor technology are shown in Table ESP EIS 6.0-5-1 of PSEG RAI response letter ND-2012-0071. The normalization factors are 0.61 for the ABWR, 0.40 for the AP1000, 0.57 for the U.S. EPR, and 0.57 for the US-APWR. The normalized waste volumes are then divided by the container volume for the reference reactor to determine the annual number of shipments. The reference reactor container volume for high activity waste is 2.34 m<sup>3</sup>. For the reference reactor, the volume of dry active waste (DAW) is very small and is not treated explicitly in the analysis to support 10 CFR 51.52 Table S-4. The volume of DAW for each reactor technology is much larger than the reference reactor, so the number of normalized shipments is based on a container size of 28.32 m<sup>3</sup>. This container size is based on a 20 ft. SEALAND container and is taken from the Calvert Cliffs COLA ER Rev. 8 Table 5.11-4. Table ESP EIS 6.0-11-1 shows the calculated normalized waste volumes and annual number of shipments for radwaste. The normalized annual radwaste shipments shown in Table ESP EIS 6.0-11-1 supersede the radwaste shipments reported in Table ESP EIS 6.0-5-2 of PSEG RAI response letter ND-2012-0071.

The footnotes to Table ESP EIS 6.0-11-1 provide the normalized radwaste shipments if the WASH-1238 shipping container volume (2.34 m<sup>3</sup>/shipment) is used for the total normalized radwaste volume in lieu of the container volumes previously mentioned (2.34 m<sup>3</sup>/shipment for high activity waste and 28.32 m<sup>3</sup>/shipment for DAW). The radwaste shipments calculated in the footnotes correspond to the values indicated in NRC RAI Env-12S, Question ESP EIS 6.0-11.

**Table ESP EIS 6.0-11-1: Normalized Annual Radwaste Shipments**

Waste Type	Container Internal Volume (m <sup>3</sup> )	ABWR			Dual AP1000 Units			U. S. EPR			US-APWR		
		Waste Volume (m <sup>3</sup> )	Normalized Waste Volume (m <sup>3</sup> )	Number of Shipments	Waste Volume (m <sup>3</sup> )	Normalized Waste Volume (m <sup>3</sup> )	Number of Shipments	Waste Volume (m <sup>3</sup> )	Normalized Waste Volume (m <sup>3</sup> )	Number of Shipments	Waste Volume (m <sup>3</sup> )	Normalized Waste Volume (m <sup>3</sup> )	Number of Shipments
Spent Resin, Evaporator Concentrates, etc.	2.34 <sup>(e)</sup>	10.0	6.1	2.6	31.0	12.4	5.3	10.7	6.1	2.6	15.3	8.7	3.7
Filters	2.34				1.9	0.8	0.3	3.4	1.9	0.8	1.9	1.1	0.5
Sludge	2.34	40.0	24.4	10.4				1.2	0.7	0.3	1.2	0.7	0.3
DAW	28.32 <sup>(f)</sup>	115.0	70.2	2.5	78.3	31.3	1.1	172.1	98.1	3.5	414.3	236.2	8.3
<b>Total</b>		165.0	100.7	15.5 <sup>(a)</sup>	111.2	44.5	6.7 <sup>(b)</sup>	187.4	106.8	7.2 <sup>(c)</sup>	432.7	246.7	12.8 <sup>(d)</sup>
<p>(a) If the reference reactor container volume (2.34 m<sup>3</sup>/shipment) is used for the entire ABWR radwaste volume, the normalized number of shipments for the ABWR would be (100.7 m<sup>3</sup> / 2.34 m<sup>3</sup> per shipment) = 43.0 shipments.</p> <p>(b) If the reference reactor container volume (2.34 m<sup>3</sup>/shipment) is used for the entire AP1000 radwaste volume, the normalized number of shipments for the AP1000 would be (44.5 m<sup>3</sup> / 2.34 m<sup>3</sup> per shipment) = 19.0 shipments.</p> <p>(c) If the reference reactor container volume (2.34 m<sup>3</sup>/shipment) is used for the entire U.S. EPR radwaste volume, the normalized number of shipments for the U.S. EPR would be (106.8 m<sup>3</sup> / 2.34 m<sup>3</sup> per shipment) = 45.6 shipments.</p> <p>(d) If the reference reactor container volume (2.34 m<sup>3</sup>/shipment) is used for the entire US-APWR radwaste volume, the normalized number of shipments for the US-APWR would be (246.7 m<sup>3</sup> / 2.34 m<sup>3</sup> per shipment) = 105.4 shipments.</p> <p>(e) This container size is taken from the WASH-1238 analysis of the reference reactor.</p> <p>(f) This container size is based on a 20 ft. SEALAND container and is taken from the Calvert Cliffs COLA ER Rev. 8 Table 5.11-4.</p>													

## **Associated PSEG Site ESP Application Revisions:**

Table 5.7-13 of PSEG Response to Env-12 (ND-2012-0071) will be changed as shown in Insert B to reflect the updated values for the radwaste shipments shown in Table ESP EIS 6.0-11-1.

The bounding number of shipments in the conclusion of Subsection 5.7.2 will be revised based on the results in revised Table 5.7-13.

New ER subsection (Subsection 5.7.2.3) of PSEG Response to Env-12 (ND-2012-0071) will be updated as shown in Insert A to address that 2.34 m<sup>3</sup>/shipment is used for high activity waste.

Table 5.7-14 of PSEG Response to Env-12 (ND-2012-0071) will be updated as shown in Insert C to reflect the updated incident-free consequences calculated using the normalized number of shipments for radwaste shown in Table ESP EIS 6.0-11-1.

Table 7.4-9 of PSEG Response to Env-12 (ND-2012-0071) will be updated as shown in Insert E to reflect the updated non-radiological accident consequences calculated using the normalized number of shipments for radwaste shown in Table ESP EIS 6.0-11-1.

Table 7.4-10 of PSEG Response to Env-12 (ND-2012-0071) will be updated as shown in Insert F to reflect the updated non-radiological accident consequences calculated using the normalized number of shipments for radwaste shown in Table ESP EIS 6.0-11-1.

Table 7.4-11 of PSEG Response to Env-12 (ND-2012-0071) will be updated as shown in Insert G to reflect the updated bounding non-radiological accident consequences consistent with Table 7.4-9 and Table 7.4-10.

Enclosure 2 includes a markup of the proposed ER revisions.

**Response to RAI No. Env-12S, Question ESP EIS 6.0-12:**

In Reference 2, the NRC staff asked PSEG for information regarding Transportation of Radioactive Materials, as described in Subsection 5.7.2 of the Environmental Report. The specific request was:

*Env-12S-2 (rTR-08S): Provide a detailed analysis for staff review of the number of annual new fuel, spent fuel, and radwaste shipments for the AP1000 design. In this analysis, resolve inconsistencies between the new fuel, spent fuel, and radwaste shipments required for one AP1000 unit and the net electrical generation normalization for two units.*

*Note: See also RAI ENV-12S-1.*

*Supporting Information: The response to RAI ENV-12, Question No. ESP EIS 6.0-5 (PSEG letter ND-2012-0071 dated Oct. 19, 2012, Accession No. ML12296A772) provides the annual number of shipments of new fuel, spent fuel, and radwaste for the AP1000 normalized to 880 MW(e). RAI response Table ESP EIS 6.0-5-1 (Net Electric Generation Normalization) provides the normalization factor for the AP1000, which is listed as 0.40 for two units and which is based on the electrical output from two units [2300 MW(e) x 0.963]. RAI response Table ESP EIS 6.0-5-2 (Normalized Number of Shipments) contains the shipment numbers for the AP1000.*

*However, the shipments listed in RAI response Table ESP EIS 6.0-5-2 for the AP1000 appear to be based on one unit but normalized to the electrical output for two units. For example, Table 5.7-6 (Irradiated Fuel Shipment Data) of the ER lists an annual reload quantity of 24.4 MTU for a single AP1000 reactor, which would be 48.8 MTU for two units. Using a container capacity of 0.5 MTU/shipment and normalizing to 880 MW(e) for the electrical output from two AP1000 reactors [2300 MW(e) x 0.963] as listed in Table ESP EIS 6.0-5-1 should yield about 38.8 annual shipments of spent fuel, while RAI response Table ESP EIS 6.0-5-2 lists 19.5 shipments.*

*This same problem in normalization for the AP1000 appears to also occur for new fuel and radwaste shipments.*



## **PSEG Response to NRC RAI:**

The new fuel shipments for the AP1000 are normalized to the reference reactor by accounting for the initial core loading and the 880 MW(e) net electric generation. First, the initial core loading is accounted for by taking 6 years of the annual new fuel shipments reported in ER Table 5.7-8 and multiplying by two to account for dual units (i.e. 6 years x 3.8 shipments/year x 2 units = 45.6 shipments). The total number of shipments representing the initial core loading is averaged over a 40-year plant lifetime and is added to the annual number of shipments for a dual unit AP1000 (i.e. 3.8 shipments/year x 2 units + (45.6 shipments / 40 years) = 8.7 shipments/year). Lastly, the number of shipments is normalized to the reference reactor using the net electric generation normalization factor for the AP1000 from PSEG RAI response letter ND-2012-0071, Table ESP EIS 6.0-5-1 (i.e. 8.7 shipments/year x 0.40 = 3.5 shipments/year).

The spent fuel shipments are normalized based on the container capacity used for spent fuel of the reference reactor and the 880 MW(e) net electric generation. The spent fuel shipments are calculated using 1.8 MTU/shipment shown in ER Table 5.7-6. The reference reactor uses 0.5 MTU/shipment. Therefore, the scaling factor used to adjust the container capacity is (1.8 MTU per container / 0.5 MTU per container) = 3.6. The number of shipments is normalized to 880 MW(e) using the normalization factor for the net electric generation shown in PSEG RAI response letter ND-2012-0071, Table ESP EIS 6.0-5-1. Therefore, the AP1000 spent fuel normalized number of shipments is (2 units x 24.4 MTU)/(1.8 MTU per container) x 3.6 x 0.40 = 39.0 shipments/year.

The normalized number of shipments for radwaste is discussed in the PSEG response to Question ESP EIS 6.0-11. The AP1000 normalized number of shipments is 6.7 shipments/year.

The calculation above is based on a dual unit AP1000. However, since the results are normalized to the reference reactor, the dual unit results also apply to a single unit AP1000. This follows because, although the number of shipments for a dual unit is twice the number for a single unit, the net electric generation normalization factor for a dual unit is one-half the normalization factor for a single unit. These two factors offset resulting in the same number of normalized shipments for a single unit and dual unit AP1000.

The normalized annual shipments for the AP1000 calculated in this response supersede the AP1000 shipments reported in Table ESP EIS 6.0-5-2 of PSEG RAI response letter ND-2012-0071.

**Associated PSEG Site ESP Application Revisions:**

Table 5.7-13 of PSEG Response to Env-12 (ND-2012-0071) will be changed as shown in Insert B to reflect the updated values for the AP1000 shipments.

Table 5.7-14 of PSEG Response to Env-12 (ND-2012-0071) will be changed as shown in Insert C to reflect the updated incident-free consequences calculated using the normalized number of shipments for the AP1000.

Table 7.4-9 of PSEG Response to Env-12 (ND-2012-0071) will be updated as shown in Insert E to reflect the updated non-radiological accident consequences calculated using the normalized number of shipments for the AP1000.

Table 7.4-10 of PSEG Response to Env-12 (ND-2012-0071) will be updated as shown in Insert F to reflect the updated non-radiological accident consequences calculated using the normalized number of shipments for the AP1000.

Enclosure 2 includes a markup of the proposed ER revisions.

## **Response to RAI No. Env-12S, Question ESP EIS 6.0-13:**

In Reference 2, the NRC staff asked PSEG for information regarding Transportation Accidents, as described in Subsection 7.4 of the Environmental Report. The specific request was:

*Env-12S-3 (rTR-14S): Provide the radionuclide inventories (Ci/MTU) for the ABWR and AP1000 that include the inventory of the radionuclide Co-60 contained within crud deposits on the spent fuel assemblies, and reexamine the conclusion that the US-APWR radionuclide inventory is the bounding design when Co-60 contained within crud deposits is included in the radionuclide inventories for all reactor types (US-APWR, U.S. EPR, ABWR, and AP1000). Provide electronic copies of the RADTRAN computer code runs (i.e., input and output files) performed in this reexamination.*

*Supporting Information: The response to RAI ENV-12, Question ESP EIS 6.0-10 (PSEG letter ND-2012-0071 dated Oct. 19, 2012, Accession No. ML12296A772) provides the radionuclide inventories for the US-APWR, U.S. EPR, ABWR, and AP1000 in terms of Ci/MTU. The radionuclide inventories are listed in RAI response Table ESP EIS 6.0-10-1 (Comparison of 5-Year Decayed Fission Product Inventories).*

*In RAI response Table ESP EIS 6.0-10-1, the radionuclide inventories for the US-APWR and U.S. EPR includes Co-60 contained within crud.*

*For the AP1000, the radionuclide Co-60 is not listed in the radionuclide inventory in RAI response Table ESP EIS 6.0-10-1. The reference for the AP1000 radionuclide inventory is listed as the Summer COL ER; however, the Summer COL EIS (NUREG-1939) lists 4.09 Ci/MTU of Co-60 as crud (see Table 6-10 in NUREG-1939).*

*There is 3630 Ci/MTU of Co-60 listed in the radionuclide inventory for the ABWR in RAI response Table ESP EIS 6.0-10-1. The reference for the ABWR radionuclide inventory is listed as the South Texas Project COL ER; however, the South Texas Project COL EIS (NUREG-1937) lists this quantity, 3630 Ci, of Co-60 as being an activation product in spent fuel (i.e., Co-60 contained within structural material). The South Texas Project COL EIS provides a separate entry for Co-60 inventory as contained within crud (169 Ci/MTU, see Table 6-10 in NUREG-1937).*

*In addition, the response to RAI ENV-12, Question ESP EIS 6.0-10 states that US-APWR radionuclide inventory is the bounding design from the analysis using the US-APWR radionuclide inventory and value for the total Ci/MTU. Based on the above information on Co-60 contained within crud for the other reactor designs, the US-APWR radionuclide inventory may not be the bounding design from the perspective of the radiological transportation accident risks that must be*

*presented in an EIS. The applicant is being asked to either re-verify this conclusion or to document which other design is considered bounding for the transportation of spent nuclear fuel.*

**PSEG Response to NRC RAI:**

The radionuclide inventories of spent fuel assemblies for the ABWR and AP1000 are updated based on the respective Environmental Impact Statements indicated in Reference 2. The inventories are updated to include the radionuclide Co-60 contained within crud deposits on the spent fuel assemblies. The radionuclide inventories for the US-APWR and U.S. EPR in Table ESP EIS 6.0-10-1 of PSEG RAI response letter ND-2012-0071 are not changed since they include Co-60 as crud.

The radionuclide inventories (Ci/MTU) that include the activity of the radionuclide Co-60 contained within crud deposits on the spent fuel assemblies for each of the reactor technologies are shown in Table ESP EIS 6.0-13-1. Table ESP EIS 6.0-13-1 supersedes Table ESP EIS 6.0-10-1 in PSEG RAI response letter ND-2012-0071. The spent fuel inventory of the US-APWR is taken from the Comanche Peak Unit 3 & 4 COLA Environmental Report (ER), Revision 3, Table 7.4-1, which lists the inventory in Ci/Assembly. A value of 0.54 MTU/assembly is used to convert the values from the Comanche Peak COLA ER into units of Ci/MTU. The spent fuel inventory of the U.S. EPR is taken from the Calvert Cliffs Unit 3 COLA ER, Revision 8, Table 7.4-3. The ABWR spent fuel inventory is taken from NUREG-1937, Table 6-10. The spent fuel inventory of the AP1000 is taken from NUREG-1939, Table 6-10.

**Table ESP EIS 6.0-13-1: Comparison of Radionuclide Inventories**

<b>Nuclide<sup>(a)</sup></b>	<b>US-APWR (Ci/MTU)</b>	<b>U.S. EPR (Ci/MTU)</b>	<b>ABWR (Ci/MTU)</b>	<b>AP1000 (Ci/MTU)</b>
Am-241	1.81E+03	1.25E+03	1.44E+03	7.27E+02
Am-242m	2.04E+01	2.38E+01	3.30E+01	1.31E+01
Am-242	2.04E+01			
Am-243	7.45E+01	3.22E+01	6.00E+01	3.34E+01
Ce-144	1.39E+04	1.52E+04	1.32E+04	8.87E+03
Pr-144 (D)				
Pr-144m (D)				
Cm-242	6.08E+01	4.35E+01	6.20E+01	2.83E+01
Cm-243	5.76E+01	3.19E+01	6.20E+01	3.07E+01
Cm-244	1.25E+04	4.84E+03	1.35E+04	7.75E+03
Cm-245		6.19E-01	2.00E+00	1.21E+00
Co-60 (Crud)	8.58E+01	7.59E+01	1.69E+02	4.09E+00
Co-60 (Particulate)			3.63E+03	
Cs-134	6.41E+04	5.84E+04	7.76E+04	4.80E+04
Cs-137	1.76E+05	1.42E+05	1.58E+05	9.31E+04
Ba-137m (D)				
Eu-154	1.03E+04	1.16E+04	1.56E+04	9.13E+03
Eu-155	2.74E+03	5.73E+03	8.27E+03	4.62E+03
I-129		4.65E-02		4.65E-02

Nuclide <sup>(a)</sup>	US-APWR (Ci/MTU)	U.S. EPR (Ci/MTU)	ABWR (Ci/MTU)	AP1000 (Ci/MTU)
Kr-85	1.09E+04	1.05E+04		8.90E+03
Pm-147	5.17E+04	3.54E+04	3.13E+04	1.76E+04
Pu-238	9.51E+03	6.95E+03	1.09E+04	6.07E+03
Pu-239	4.08E+02	4.24E+02	4.27E+02	2.55E+02
Np-239	7.45E+01			
Pu-240	6.97E+02	7.24E+02	8.52E+02	5.43E+02
Pu-241	1.68E+05	1.17E+05	1.35E+05	6.96E+04
Pu-242		2.28E+00	3.00E+00	1.82E+00
Ru-106	2.46E+04	2.05E+04	2.29E+04	1.55E+04
Rh-106 (D)				
Sb-125	3.39E+03	5.35E+03	7.17E+03	3.83E+03
Sr-90	1.20E+05	1.03E+05	1.06E+05	6.19E+04
Y-90	1.20E+05	1.03E+05	1.06E+05	6.19E+04
H-3	6.49E+02			
Tc-99	2.33E+01			
Ag-110m	5.43E+01			
Cd-113m	4.98E+01			
Te-125m	8.30E+02			
Sm-151	6.47E+02			
Total	7.93E+05	6.42E+05	7.12E+05	4.18E+05

(a) The nuclides labeled with a (D) are daughter products and are included with the parent in RADCAT/RADTRAN program.

The spent fuel inventory of each reactor technology shown in Table ESP EIS 6.0-13-1 is input into RADCAT/RADTRAN to determine the radiological consequences from transportation accidents. Table ESP EIS 6.0-13-2 provides a comparison of the calculated consequences. Based on Table ESP EIS 6.0-13-2, the ABWR is determined to be the bounding design from the perspective of transportation accident risks. Enclosure 2 contains the electronic files for the RADCAT/RADTRAN computer code runs (input and output files) requested in Env-12S, Question ESP EIS 6.0-13.

**Table ESP EIS 6.0-13-2: Comparison of RADCAT/RADTRAN Radiological Consequences**

Irradiated Fuel Radionuclide Inventory	Person-Sv per MTU-Shipped
US-APWR	3.41E-08
ABWR	4.49E-08
AP1000	1.32E-08
U.S. EPR	2.88E-08

### **Associated PSEG Site ESP Application Revisions:**

Section 7.4.1.2 is updated to indicate that the bounding reactor from the perspective of transportation accident risks is changed from the US-APWR to the ABWR.

Table 7.4-2 is updated per Insert D to indicate the irradiated fuel source term for the ABWR.

Table 7.4-5 is updated to reflect the results from the analysis using the ABWR irradiated fuel source term.

Table 7.4-8 is updated to reflect the total of radiological consequence reported in Table 7.4-5.

Appendix 7A.1 is updated to contain RADCAT/RADTRAN input screenshots (Insert H) and output (Insert I) corresponding to transportation analysis of the ABWR instead of the US-APWR. No inputs are changed except for the radionuclide inventory.

Enclosure 2 includes a markup of the proposed ER revisions.

**PSEG Letter ND-2013-0004, dated March 7, 2013**

**ENCLOSURE 2**

**CD-ROM containing:**

**Proposed revisions, Part 3 – Environmental Report (ER)  
Electronic files requested in RAI Env-12S, Question ESP EIS 6.0-13**

