

<b>NRC FORM 7</b> (8-2007) 10 CFR 110	<b>U.S. NUCLEAR REGULATORY COMMISSION</b>	<b>APPROVED BY OMB: NO. 3150-0027</b>  Estimated burden per response to comply with this mandatory collection request: 2.4 hours. This submittal is reviewed to ensure that the applicable statutory, regulatory, and policy considerations are satisfied. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to <a href="mailto:infocollect@nrc.gov">infocollect@nrc.gov</a> , and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0027), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.
<b>APPLICATION FOR NRC-EXPORT/IMPORT LICENSE, AMENDMENT, OR RENEWAL</b> (See Instructions on Page 5)		
<b>PART A. FOR NRC USE ONLY</b>	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC	DATE RECEIVED <div style="font-size: 1.5em; font-family: cursive;">01-29-09</div>
LICENSE NUMBER	DOCKET NUMBER	ADAMS ACCESSION NUMBER
<b>PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS</b> (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)		
1. NAME AND ADDRESS OF APPLICANT/LICENSEE <b>EnergySolutions</b> 1560 Bear Creek Rd Oak Ridge, TN 37831	1a. NAME OF APPLICANT'S CONTACT Philip Gianutsos  1c. PHONE NUMBER 865 220-1478  1e. E-MAIL ADDRESS <a href="mailto:pgianutsos@energysolutions.com">pgianutsos@energysolutions.com</a>	1b. APPLICANT'S REFERENCE NUMBER ---N/A---  1d. FAX NUMBER 865 220-1668
2. TYPE OF NRC LICENSE REQUESTED (Check One) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> EXPORT            (Parts B, C, E)         </div> <div> <input checked="" type="checkbox"/> NOTIFICATION OF EXPORT OF INCIDENTAL RADIOACTIVE MATERIAL (PART C,E)         </div> <div> <input type="checkbox"/> IMPORT            (Parts B, D, E)         </div> <div> <input type="checkbox"/> COMBINED EXPORT/IMPORT            (Parts B, C, D, E)         </div> <div> <input type="checkbox"/> AMENDMENT/RENEWAL            Existing License Number:         </div> </div>		
3. CONTRACT NUMBER(S) RWSA dated 10/17/07	4. FIRST SHIPMENT DATE 1/27/09	5. LAST SHIPMENT DATE 12/31/09
6. PROPOSED EXPIRATION DATE ----N/A----		
<b>PART C. TO BE COMPLETED FOR EXPORT ONLY OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS</b> (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)		
7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT  <b>EnergySolutions</b> 1560 Bear Creek Rd Oak Ridge, TN 37831	8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S)  ---NONE---	9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S)  Bruce Power Inc. Building B10, 177 Tie Road Municipality of Kincardine R.R #2 Tiverton, Ontario NOG 2T0 Contact: Kurt Wigle Ph: 519-361-2673 ext. 3745
7a. LIST FUNCTIONS PERFORMED/SERVICE PROVIDED  Empty, reusable containers provided by EnergySolutions to Bruce Power.	8a. INTERMEDIATE USE(S)  ---NONE---	9a. ULTIMATE END USE(S)  The containers are for use by Bruce Power for packaging of radioactive material. A licensed Canadian broker (Monserco) will eventually return the containers to Oak Ridge, TN, as authorized by IW017.
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT  Up to 50 cargo containers will be shipped to consignees listed in the Additional Information Sheet. The cargo containers consist of nominal 8'x8'x20' cargo containers each weighing approximately 5500 kgs (12,000 pounds) and containing empty metal boxes for waste packaging. Incidental radioactive material is present as contamination on the interior surfaces of the cargo containers and metal boxes. The contamination is predominantly byproduct material, with traces of source and special nuclear material. All radioactive material is in the form of solid metal oxides. See attached page for quantities of Appendix L materials. Several Appendix P radionuclides will be present, with each shipment << 0.1% of the Category 2 limit (calculation is also presented in attachment)	10a. MAX TOTAL VOLUME/ ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)  Total for 50 containers:  Approx 0.025 TBq (0.663 Ci) of byproduct material.  Approx 0.134 kgs of source Material  < 0.02 grams of SNM (Pu)	10b. MAX ENRICHMENT OR WGT %  No enriched U
10c. MAX ISOTOPE WGT (KG)  Total for 50 containers:  PU-238 2.47E-9 PU-239 3.05E-6 PU-240 3.26E-9 PU-241 4.00E-9 PU-242 4.04E-6		<div style="font-size: 2em; font-family: cursive; transform: rotate(-15deg); position: absolute; right: -50px; top: 0;">           NM            keep            01-29-09         </div>
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)  -----NONE-----		

NRC FORM 7  
(8-2007)  
10 CFR 110

U.S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)**

LICENSE NUMBER

DOCKET NUMBER

ADAMS ACCESSION NUMBER

☒ PUBLIC OR ☐ NON-PUBLIC**PART D. TO BE COMPLETED FOR IMPORT ONLY, OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS**

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. NAME(S) / ADDRESS(ES) OF FOREIGN  
SUPPLIERS AND/OR OTHER PARTIES  
TO IMPORT

-----N/A-----

13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE  
CONSIGNEE(S)

-----N/A-----

14. NAME(S) / ADDRESS(ES) OF ULTIMATE  
CONSIGNEE(S)

-----N/A-----

12a. NRC EXPORT LICENSE NUMBER(S)  
(if applicable)

-----N/A-----

13a. LICENSE NUMBER(S) / EXPIRATION DATE(S)

-----N/A-----

14a. LICENSE NUMBER(S) / EXPIRATION DATE(S)

-----N/A-----

13b. INTERMEDIATE USE(S)

-----N/A-----

14b. INTERMEDIATE USE(S)

-----N/A-----

15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES,  
NUCLEAR FACILITIES

-----N/A-----

15a. MAX TOTAL VOLUME/  
ELEMENT WGT (KG), OR  
TOTAL ACTIVITY (TBq)

-----N/A-----

15b. MAX ENRICHMENT  
OR WGT %

-----N/A-----

15c. MAX ISOTOPE  
WGT (KG)

-----N/A-----

16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

**PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS**

17. ADDITIONAL

INFORMATION

PROVIDED ON PAGE 3  
AND/OR ON SEPARATE  
SHEETS?

☒ YES ☐ NO

17a. COPIES OF RECIPIENTS'  
AUTHORIZATIONS PROVIDED?

☐ YES ☒ NO**18. CERTIFICATION:**

I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title 10,  
Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.

18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL

Philip Gianutsos, CHP Radiation Safety Officer

18b. SIGNATURE - AUTHORIZED OFFICIAL

*Philip Gianutsos*

18c. DATE

01/26/09

*MM  
keep  
01/29/09*

NRC FORM 7  
(8-2007)  
10 CFR 110

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER	DOCKET NUMBER	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
----------------	---------------	------------------------	---

ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

For blocks 10, 10a-10c:

Activity is scaled from current empty container isotopic distribution and is representative of containers to be exported.

Radiological Content		
Activity	20' empty seavan	
Nuclide	MBq	mCi
AC-228	3.428E-03	9.265E-05
AG-110	4.473E-01	1.209E-02
AM-241	1.196E-01	3.233E-03
BI-214	1.613E-03	4.359E-05
C-14	5.238E-01	1.416E-02
CE-144	5.811E-02	1.571E-03
CM-243	7.371E-03	1.992E-04
CM-244	6.537E-03	1.767E-04
CO-58	7.509E+00	2.029E-01
CO-60	6.693E+01	1.809E+00
CR-51	1.254E+00	3.388E-02
CS-134	4.553E-01	1.231E-02
CS-137	5.194E+00	1.404E-01
EU-152	1.694E-03	4.579E-05
FE-55	2.471E+02	6.679E+00
FE-59	8.129E-01	2.197E-02
H-3	1.041E+02	2.815E+00
I-125	4.277E-01	1.156E-02
MN-54	1.750E+01	4.731E-01
NB-95	1.325E+00	3.582E-02
NI-59	1.530E+00	4.136E-02
NI-63	2.112E+01	5.709E-01
PM-146	9.435E-04	2.550E-05
PU-238	3.111E-02	8.409E-04
PU-239	1.398E-01	3.777E-03
PU-240	5.550E-04	1.500E-05
PU-241	2.961E-01	8.003E-03
PU-242	1.166E-02	3.150E-04
SB-125	6.725E-01	1.818E-02
SN-113	3.013E-02	8.144E-04
SR-90	3.474E-01	9.389E-03
TC-99	3.722E-02	1.006E-03
TH-230	1.613E-03	4.359E-05
TH-234	3.239E-01	8.753E-03
TL-208	7.052E-04	1.906E-05
U-233	4.130E-02	1.116E-03
U-234	1.547E+00	4.181E-02
U-235	1.494E-03	4.037E-05
U-236	6.487E-02	1.753E-03
U-238	3.323E-02	8.980E-04
ZN-65	9.696E+00	2.621E-01
ZR-95	4.480E-01	1.211E-02
Total	4.903E+02	1.325E+01

	TBq	Ci
Single Seavan	4.903E-04	1.325E-02
50 20' seavans	2.451E-02	6.625E-01

Special Nuclear Material & Source Material		
	20' seavan	
	SNM (gms)	SM (kgs)
PU-238	4.946E-08	
PU-239	6.093E-05	
PU-240	6.522E-08	
PU-241	8.003E-08	
PU-242	8.077E-05	
TH-230		2.076E-09
TH-234		3.806E-13
U-233	1.151E-04	
U-234	No	6.743E-06
U-235	Enriched	
U-236	Uranium	2.697E-05
U-238		2.641E-03
Total	2.570E-04	2.675E-03

kg source material X50 1.337E-01

U enrichment 6.882E-03

APPENDIX P EVALUATION			
	20' activity,	App P, Cat 2	1 empty 20' sealand
nuclide	MBq	limit	(fraction of limit)
AM-241	1.196E-01	6.000E+05	1.994E-07
CM-244	6.537E-03	5.000E+05	1.307E-08
CO-60	6.693E+01	3.000E+05	2.231E-04
CS-137	5.194E+00	1.000E+06	5.194E-06
Pu-238	3.111E-02	6.000E+05	5.186E-08
SR-90	3.474E-01	1.000E+07	3.474E-08
shipment of 2 20' seavans, sum of fractions			4.572E-04

Rec'd  
NM  
01-29-09



Commercial Processing Division 1560 Bear Creek Road Oak Ridge, TN 37831 865 481-0222

January 26, 2009

Mr. Scott Moore  
Deputy Director - Office of International Programs  
US Nuclear Regulatory Commission  
Mail Stop 4E21  
Washington, DC 20555-

Dear Mr. Moore:

In accordance with instructions in 10 CFR 110.4 we are providing the attached NRC Form 7 as notification of EnergySolutions' intent to export empty containers to Bruce Power Station in Ontario, Canada.

These are reusable containers dedicated to radioactive materials shipments and the interiors are surficially contaminated, albeit at very low levels. The containers are being exported under the General License for Export provisions of 10 CFR 110.21(e), 22(a), and 23(c) for Special Nuclear Material, Source Material, and By-Product Material. The loaded containers will subsequently be collected by Monserco (a licensed Canadian broker) and eventually shipped to EnergySolutions' Oak Ridge, TN processing facility as authorized by IW017.

Contact me if additional information or clarification is required.

Respectfully,

A handwritten signature in black ink, appearing to read "Philip Gianutsos".

Philip Gianutsos, CHP  
Radiation Safety Officer  
Commercial Processing Division

NM  
RCED  
01-29-09

Attachments:  
NRC Form 7

cc: Mr. Tim Ryder, Monserco