

The logo for EnergySolutions features the company name in a bold, serif font. Above the text, there are three curved lines that sweep from the left towards the right, suggesting motion or energy.

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

May 29, 2008

Mr. Scott Moore
Deputy Director
Office of International Programs
U. S. Nuclear Regulatory Commission
Washington, DC 20555
Mail Stop: O4E21

Dear Mr. Moore:

This letter and the attached NRC Form 7 are notification of EnergySolutions' intent to export steel shield blocks containing small amounts of radioactivity to the KEK particle accelerator facility in Japan. The nominal 10-ton (each) blocks are poured at our Oak Ridge, Tennessee facility, under a Tennessee Agreement State Radioactive Materials License (R-73016), and are created using selected (for management of radionuclide content and metal bath chemistry) contaminated and activated metals of both domestic and foreign origin. These blocks are the same as those shipped in late 2007.

The shield blocks are being shipped to Japan as exempt from regulation under current IAEA guidance, and 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. Although the melt chemistry of our production operation precludes the presence of SNM and Source materials in the final product, we are referencing the General License provisions for these materials since they were present in the feed materials.

Quantitative gamma spectroscopy was used to identify the presence of gamma emitters (primarily ^{60}Co and ^{54}Mn). Hard-to-detect radionuclides (e.g., ^{55}Fe) were scaled into the melt based upon manifested fractions and elemental partitioning factors, as approved in our facility radioactive materials license. A total of approximately 5 Gbq (137 millicuries) of activity is volumetrically distributed over the nominal 667,000 kgs of steel. The blocks meet our unrestricted release criteria for removable contamination, and the contained activity is non-dispersible. The radioactive materials concentrations in the blocks meet the exemption requirements of IAEA Safety Series 115 and are not Class 7 materials for purposes of USDoT or IAEA transportation regulation. In addition, NRPB Publication R-306 (*Exempt Concentrations and Quantities for Radionuclides not Included in the European Basic Safety Standards Directive*) is used for cases where IAEA values are not specified, as requested by our customer in Japan. Individually and collectively, the shield blocks (a product, not waste) are a very small fraction of the Class A limit, as presented in 10 CFR 61.55 and contain ^{60}Co at a very small fraction of the Appendix P, Category 2 threshold (< 1%). Also note that the transfer of licensed material in the shield blocks to the KEK facility is explicitly authorized by our Tennessee Radioactive Materials license.

Received
OIP 6/2/08

The blocks will be picked up at our Oak Ridge facility and transported by highway to Savannah, Georgia where they will be palletized for loading onto ocean freighters. Truck shipments are expected to run from 6/02/08 through 6/20/08. The blocks will be split into three sailings via Zim Line (the contracted ocean carrier). The estimated departure date for the first sailing is 6/20/2008 with receipt in the Yokohama, Japan port approximately 8/01/08. The second sailing will depart 6/27/08 with receipt approximately 8/01/08. The third sailing will depart 7/04/08 with receipt approximately 8/15/08.

Please consider this letter to be an addendum to the attached NRC Form 7.

Contact me if additional information or clarification is required.

Philip Gianutsos, CHP



EnergySolutions Radiation Safety Officer
Commercial Processing Division

Attachments:
NRC Form 7

cc: Mr. Paul MacMurdy, USNRC

NRC FORM 7 (8-2007) 10 CFR 110	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0027	EXPIRES: 06/30/2009
APPLICATION FOR NRC EXPORT/IMPORT LICENSE, AMENDMENT, OR RENEWAL (See Instructions on Page 5)		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 infocollects@nrc.gov, 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.	

PART A - FOR NRC USE ONLY	<input type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC	DATE RECEIVED
LICENSE NUMBER	DOCKET NUMBER	ADAMS ACCESSION NUMBER

PART B. TO BE COMPLETED FOR ALL 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.)

1. NAME AND ADDRESS OF APPLICANT/LICENSEE EnergySolutions 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 pgianutsos@energysolutions.com	1b. APPLICANT'S REFERENCE NUMBER KEK-003 1d. FAX NUMBER 865 220-1668	
2. TYPE OF NRC LICENSE REQUESTED (Check One) <input type="checkbox"/> EXPORT (Parts B, C, E) <input checked="" type="checkbox"/> NOTIFICATION OF EXPORT OF INCIDENTAL RADIOACTIVE MATERIAL (PART C,E) <input type="checkbox"/> IMPORT (Parts B, D, E) <input type="checkbox"/> COMBINED EXPORT/IMPORT (Parts B, C, D, E) <input type="checkbox"/> AMENDMENT/RENEWAL Existing License Number:			
3. CONTRACT NUMBER(S) DRTK-001	4. FIRST SHIPMENT DATE June 2, 2008	5. LAST SHIPMENT DATE June 20, 2008	6. PROPOSED EXPIRATION DATE not applicable


PART C. TO BE COMPLETED FOR EXPORT 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.)

7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT Cargo Group, LLC 6232 Highway 21 Port Wentworth, GA 32407	8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S) -----none-----	9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) KEK - High Energy Accelerator Research Organization 1-1 Oo Tsukuba, Ibaraki 305-0801 Japan	
7a. LIST FUNCTIONS PERFORMED/SERVICE PROVIDED Shield blocks will be palletized and containers loaded at a warehouse operated by Cargo Group, LLC, in Savannah, prior to being loaded onto the ocean-going vessels.	8a. INTERMEDIATE USE(S) -----none-----	9a. ULTIMATE END USE(S) Shielding of high energy accelerator components at the KEK facility. Shielding will become activated from neutron irradiation; final disposition will be in accordance with Japanese regulations.	
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 667,000 kgs of steel shield blocks (78 @ nominally 9600 kg, each), containing incidental quantities of byproduct material in the form of oxides distributed throughout the steel matrix. These materials are a shielding product with radioactivity concentrations at a very small fraction of the 10 CFR 61.55-defined Class A limit. In addition, the blocks meet the exemption specifications of IAEA Safety Series 115.	10a. MAX TOTAL VOLUME/ ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) Nominal activity of 5.05 GBq, primarily ⁶⁰ Co, ⁶³ Ni, and ⁵⁵ Fe with traces of other fission and activation products.	10b. MAX ENRICHMENT OR WGT % n/a - the blocks contain no detectable uranium.	10c. MAX ISOTOPE WGT (KG) n/a - the blocks contain no detectable uranium.
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) -----n/a-----			

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 type="checkbox"/> PUBLIC OR <input type="checkbox"/> 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 -----not applicable -----	13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S) -----not applicable -----	14. NAME(S) / ADDRESS(ES) OF ULTIMATE CONSIGNEE(S) -----not applicable -----		
12a. NRC EXPORT LICENSE NUMBER(S) (if applicable) -----not applicable -----	13a. LICENSE NUMBER(S) / EXPIRATION DATE(S) -----not applicable -----	14a. LICENSE NUMBER(S) / EXPIRATION DATE(S) -----not applicable -----		
	13b. INTERMEDIATE USE(S) -----not applicable -----	14b. INTERMEDIATE USE(S) -----not applicable -----		
15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES -----not applicable -----	15a. MAX TOTAL VOLUME/ ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) -----not applicable -----	15b. MAX ENRICHMENT OR WGT % -----not applicable -----	15c. MAX ISOTOPE WGT (KG) -----not applicable -----	
16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) -----not applicable -----				
PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS				
17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS? <i>See cover letter</i> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> 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 Radiation Safety Officer	18b. SIGNATURE - AUTHORIZED OFFICIAL 		18c. DATE May 29, 2008	