



Duratek™

1560 Bear Creek Road
Oak Ridge, Tennessee 37831
phone 865-481-0222 fax 865-482-7206
www.duratekinc.com

August 27, 2010

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

XW 018
IWO 29
Rec'd
NOV 03 2010
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Subject: Combined Applications for the Export/Import of Radioactive Material

Dear Mr. Moore:

Duratek Services, Inc. requests a specific license to import radioactively contaminated dry active waste from Germany to Duratek's facility in Oak Ridge, Tennessee for incineration under Duratek's Tennessee licenses. Duratek also requests a specific license to authorize the export of the resultant ash from this incineration back to Germany.

This license is to allow the importation of up to 1,000 tons (900 tonnes) of radioactively contaminated dry active incinerable material. The source of this material is Eckert & Ziegler Nuclitec. Eckert & Ziegler Nuclitec (EZN) provides a range of services to the European nuclear industry related to the collection, transportation, processing, storage and disposal of radioactive waste including liquids, solid combustibles, non-combustibles and short or long-lived and high or low-activity radioactive materials. Eckert & Ziegler Nuclitec specializes in the collection and conditioning of radioactive waste from hospitals, research and technical facilities.

At present the EZN Facility is near capacity and is investigating various volume reduction techniques, including incineration, to reduce the volume currently stored and minimize future storage volumes.

The purpose of the import license is to import incinerable material from EZN, incinerate the material at Duratek's Bear Creek Facility in dedicated burns maintaining proper segregation of resultant waste, and packaging the ash in appropriate containers for export back to the EZN Facility in Germany.

The combined export/import application is attached. Also attached is the addendum containing additional information supporting the export/import application. We assume NRC will appropriately delete possession limit information in the interest of materials security prior to making these documents publicly available. We are enclosing a check in the amount of \$19,600 to address the fees for two applications specified in 10 CFR

Shipments of material will not be imported under this proposed US import license until EZN has obtained all necessary permits for export and import from Germany.

6) Description of the Material (10 CFR 110.32(f)(1 and 5))

The material to be imported consists of up to 1000 tons (900 tonnes) of incinerable dry active material.

The radionuclides in the contamination over the duration of the proposed license will not exceed the following limits which are consistent with the possession limits of Duratek's Tennessee licenses (R-73008 and R-73016) which authorize the following amounts:

| <u>Radionuclides</u> | <u>CI/TBq</u> |
|-----------------------------------|--|
| H-3 | 400/14.8 |
| C-14 | 200/ 7.4 |
| Ra-226 | 20/0.74 |
| Th-232 | 20/0.74 |
| Po-210 | 10/0.37 |
| U natural/depleted | 200/ 7.4 |
| U-other but not 233,235,or 238 | 2/0.07 |
| At# 3-83(Total) | 800/29.6 |
| At# 84-91(Total) | 2.5/0.09 |
| TRU | 2.5/0.09 |
| Am-241 | 250/ 9.3 |
| Fe-55 | 1000/ 37 |
| SNM, 235U equivalent | 350 grams (Duratek does not expect the enrichment level to exceed 10% by weight) |

The chemical and physical form of the above isotopes may be in any form suitable for transport under US DOT regulations. This is the limitation in Duratek's Tennessee licensees.

It is expected that the imports will involve numerous shipments during the term of the license. No one shipment will exceed the values found in 10 CFR Part 110, Appendix P, Table I, Category 2. In addition, no one shipment will exceed 10 percent of the above possession limits of Duratek's current State of Tennessee Agreement State licenses.

Shipments may include one or more packages of material. However, the quantities of radioactive material in any one package will not exceed the Table A₂ values of 49 CFR 173.435.

Imported material will not include mixed waste (mixed hazardous and radioactive waste constituents) as defined under the Resource Conservation and Recovery Act.

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| NRC FORM 7 (3-2010) 10 CFR 110 | | U.S. NUCLEAR REGULATORY COMMISSION | | APPROVED BY OMB: NO. 3150-0027 | | EXPIRES: 08/31/2012 | |
| 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 infocollect@nrc.gov , and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-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 checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC | | DATE RECEIVED NOV 03 2010 | | | |
| LICENSE NUMBER 2W029 | | DOCKET NUMBER 11005896 | | 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 | | 1b. APPLICANT'S REFERENCE NUMBER --N/A-- | | | |
| | | 1c. PHONE NUMBER 865 220-1478 | | 1d. FAX NUMBER 865 220-1668 | | | |
| | | 1e. E-MAIL ADDRESS pgianutsos@energysolutions.com | | | | | |
| 2. TYPE OF NRC LICENSE REQUESTED (Check One) <input type="checkbox"/> EXPORT (Parts B, C, E) <input type="checkbox"/> NOTIFICATION OF EXPORT OF INCIDENTAL RADIOACTIVE MATERIAL (PART C.E) <input type="checkbox"/> IMPORT (Parts B, D, E) <input checked="" type="checkbox"/> COMBINED EXPORT/IMPORT (Parts B, C, D, E) <input type="checkbox"/> AMENDMENT/RENEWAL | | | | | | | |
| 3. CONTRACT NUMBER(S) | | 4. FIRST SHIPMENT DATE January 1, 2011 | | 5. LAST SHIPMENT DATE December 31, 2016 | | 6. PROPOSED EXPIRATION DATE December 31, 2016 | |
| 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 EnergySolutions 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) Contact: Wilhelm Wartenberg Eckert & Ziegler Nuclitec GmbH Gieselweg 1 38110 Braunschweig Germany Tel.: +49 5307 932 142 Fax: +49 5307 932 341 | | | |
| 7a. LIST FUNCTIONS PERFORMED/SERVICE PROVIDED Volume reduction by incineration of dry active material. Return of non-incinerables and/or non-conforming material. | | 8a. INTERMEDIATE USE(S) -----none----- | | 9a. ULTIMATE END USE(S) Storage or disposal by the original generator, as required or authorized by their regulator. | | | |
| 10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT Hearth ash from the incineration of dry active material. Exported material may also include non-incinerable or non-conforming material identified during inspection prior to incineration. Material to be packaged in containers acceptable for transportation in accordance with USDOT and IAEA regulations. | | 10a. MAX TOTAL VOLUME/ ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq) Not to exceed 9.0E+05 kg. See Addendum 1 for additional information. | | 10b. MAX ENRICHMENT OR WGT % Enrichment not expected to exceed 10%. | | 10c. MAX ISOTOPE WGT (KG) Not to exceed 350 grams SNM. | |
| 11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) Germany | | | | | | | |