

**APPLICATION FOR LICENSE TO EXPORT  
NUCLEAR MATERIAL AND EQUIPMENT**

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 Management Branch (T-6 E6), 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, NEOB-10202, (3150-3027), 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.

(See Instructions on Reverse)

1. APPLICANT'S USE	a. DATE OF APPLICATION 3/4/2006	b. APPLICANT'S REFERENCE n/a	2. NRC USE	a. DOCKET NUMBER 1005620	b. LICENSE NUMBER XW0010
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3. APPLICANT'S NAME AND ADDRESS			4. SUPPLIER'S NAME AND ADDRESS (Complete if applicant is not supplier)		
a. NAME Duratek Services, Inc			a. NAME same		
b. STREET ADDRESS (Facility Site) 1560 Bear Creek Road			b. STREET ADDRESS		
c. CITY Oak Ridge	d. STATE TN	e. ZIP CODE 37831	b. STREET ADDRESS		
f. TELEPHONE NUMBER (865) 220-1478	g. FAX (865) 220-1668	h. E-MAIL pgianutsos@durte	c. CITY	d. STATE	e. ZIP CODE

5. FIRST SHIPMENT SCHEDULED 06/05/2006	6. FINAL SHIPMENT SCHEDULED 06/05/2011	7. APPLICANT'S CONTRACTUAL DELIVERY DATE	8. PROPOSED LICENSE EXPIRATION DATE 06/30/2011	9. CONTRACT NO. n/a
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10. ULTIMATE FOREIGN CONSIGNEE		11. ULTIMATE END USE (Include plant or facility name)	
a. NAME Monserco, Limited		Storage and eventual disposal in accordance with Canadian requirements.	
b. STREET ADDRESS (Facility Site) 190 Wilkerson Road, Unit #2		11a. DATE REQUIRED	
c. CITY Brampton, Ontario L6T 9W3	d. COUNTRY Canada	13. INTERMEDIATE END USE	

12. INTERMEDIATE FOREIGN CONSIGNEE		13. INTERMEDIATE END USE	
a. NAME N/A		None	
b. STREET ADDRESS (Facility Site) N/A		13a. DATE REQUIRED	
c. CITY N/A	d. COUNTRY N/A	15. INTERMEDIATE END USE	

14. INTERMEDIATE FOREIGN CONSIGNEE		15. INTERMEDIATE END USE	
a. NAME N/A		None	
b. STREET ADDRESS (Facility Site) N/A		15a. DATE REQUIRED	
c. CITY N/A	d. COUNTRY N/A	15. INTERMEDIATE END USE	

16. COM CODE	17. DESCRIPTION (Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)	18. MAX. ELEMENT WEIGHT	19. MAX. WT. %	20. MAX. ISOTOPE WEIGHT	21. UNIT
	Waste from processing contaminated material originating from Canada. See attached addendum.	See addendum	5	for enriched U, 350 g over 5 yrs	grams

22. FOREIGN OBLIGATIONS BY COUNTRY AND PERCENTAGE (Use separate sheet if necessary)  
N/A

23. ADDITIONAL INFORMATION ON CONSIGNEES, END USES, AND PRODUCT DESCRIPTION (Use separate sheet if necessary)  
see attached addendum

24. The applicant certifies that this application is prepared in conformity with Title 10, Code of Federal Regulations; and that all information in this application is correct to the best of his/her knowledge.

25. AUTHORIZED OFFICIAL	a. SIGNATURE	b. TITLE
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**Duratek**™

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

XW0010  
11005620

April 10, 2006

Ms. Margaret Doane  
Deputy Director  
Office of International Programs  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

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**Subject:** Applications for 1) Specific License to Import Radioactive Material  
2) Specific License to Export Radioactive Material

Dear Ms. Doane:

Duratek requests a specific license to import potentially radioactively contaminated material from Canada to Duratek's facility in Oak Ridge, Tennessee for processing under Duratek's Tennessee licenses. Duratek also requests a specific license to authorize the export of radioactive waste generated from this processing to the extent necessary back to Canada.

This license is a generic license to allow the importation of up to 6000 tons of radioactively contaminated material including metals, dry activity material such as wood, paper, and plastic, and liquids such as aqueous and organic based fluids. The sources of this material are not fully known as of the date of this application but will be limited to Canadian facilities authorized by Canada to use and possess radioactive material such as reactors, fuel cycle facilities, and material licensees or facilities equivalent to US Superfund sites. It is expected that the material to be imported would be generated during various activities such as remediation, decontamination, decommissioning, maintenance, equipment upgrades, and routine operational activities. Some of the material to be imported will be free from contamination, some may only be surficially contaminated, and some may be volumetrically contaminated.

The purpose of the import license is to import potentially contaminated material for beneficial reuse by 1) recycling metals for reuse as much of the metal as possible; 2) incinerating liquids and dry activity material to generate energy (i.e., steam) to use in Duratek's operations; and 3) using liquids for cooling purposes in Duratek's operations. Some decontamination work maybe involved. The purpose of the export license is to allow waste that is attributable to Canadian sources under this import license to be exported back to Canada.

**Applications for -- 1) Specific License to Import Radioactive Material  
2) Specific License to Export Radioactive Material**

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The applications are attached in Attachments 1, 2, and 3. 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 \$15,000 to address the fees for two applications specified in 10 CFR 170.31, Category 15 B., assuming Executive Branch, but not Commission review, is required for each application.

If you have any questions or need additional information, please do not hesitate to call me at 865-220-1478.

Respectfully submitted,



Philip Gianutsos, CHP  
Radiation Safety Officer  
Duratek Services, Inc.

**Attachments:**

- 1) Import Application
- 2) Export Application (Form 7)
- 3) Addendum to Export Application

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**ATTACHMENT 3**

**PART 110 EXPORT APPLICATION ADDENDUM**

**1) Name and Address of Applicant (10 CFR 110.32(a))**

Duratek Services, Inc  
Bear Creek Operations  
1560 Bear Creek Road  
Oak Ridge, TN 37831-2530  
Contact: Philip Gianutsos  
Phone Number 865-220-1478.  
E-mail pgianutsos@duratekinc.com

**2) Name and Address of Supplier of the Material (10 CFR 110.32(b))**

Duratek Corporation  
Bear Creek Operations  
1560 Bear Creek Road  
Oak Ridge, TN 37831-2530  
Contact: Philip Gianutsos  
Phone Number 865-220-1478.  
E-mail pgianutsos@duratekinc.com

**3) County of Origin (10 CFR 110.32(c))**

Canada

**4) Name and Address of Ultimate Consignee (10 CFR 110.32(d))**

Under this export license, waste generated from importation of contaminated material under the proposed US import license associated with this export application will result from multiple Canadian sources. The Canadian sources are not fully known at this time. The currently identified source is:

Contact: Tim Ryder  
Monserco Limited  
190 Wilkinson Road, Unit #2  
Brampton, Ontario  
L6T 9W3  
Phone: 905 450-3507 ext 318

Business arrangements for other suppliers have either not been initiated or completed. Duratek will supply this information in the form of a license amendment once such arrangements have been completed and, at least, 60 days in advance of any import that may generate the waste to be exported under this application. Consistent with the concept for a minor license amendment, exports under this license for future consignees

will be enveloped by the provisions in this application. Consequently, it is expected that the only changes will be to this section of the application

**5) Dates of Proposed First and Last Shipment (10 CFR 110.32(e))**

Shipments expected between 2006 and 2011. The first shipment will not begin until the proposed import license which is associated with this application is issued and waste is generated during the processing of the imported material. In addition, exports are dependent on obtaining Canadian import permits for the associated US imported waste. Duratek will not import any waste for processing until Canada has issued an import license to allow waste associated with the particular import to be returned back to Canada. It is expected that there will be multiple import licenses issued by Canada during the duration of this proposed US import license.

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

The material subject to this application is the material imported under the proposed import license which is associated with this application that was not recycled, burned, or otherwise released under Duratek's State of Tennessee license. At this time it is not possible to estimate the quantities, volume, and curies of the materials that will need to be exported. It will be a fraction of the imported amount. Consequently, the material to be exported will not exceed the following quantities which are specified in the associated import application:

<u>Material</u>	<u>Weight Pounds/ Kilograms</u>
<u>Metals</u>	
Ferrous Metal	5,000,000/ 2,300,000
Non-Ferrous	2,000,000/ 900,000
<u>Dry Activity Material</u>	
Burnable	3,000,000/ 1,350,000
Non-burnable	1,000,000/ 450,000
<u>Liquids</u> (aqueous and organic based)	1,000,000/ 450,000

The radionuclides in the waste to be exported 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/ .74
Th-232	20/ .74
Po-210	10/ .37

U natural/depleted	200/ 7.4
U-other but not 233,235, or 238	2/ .07
At# 3-83(Total )	800/29.6
At# 84-91(Total)	2.5/ .09
TRU	2.5/ .09
Am-241	250/ 9.3
Fe-55	1000/ 37
SNM, 235U equivalent	350 grams (Duratek does not expect the enrichment level to exceed 5% 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 licenses.

It is expected that the exports will involve numerous shipments during the term of the license. No one shipment will exceed the values found in 10 CFR Part 110, Appendix F, 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 A<sub>2</sub> values of 49 CFR 173.435.

In addition, the exported material will not exceed class A as defined in 10 CFR 61.55.

#### **7) Route of Shipments (10 CFR 110.32(f)(5))**

The expected route of exports is by truck primarily interstate highways from Bear Creek Road to ports of exit at Buffalo, New York, Detroit, Michigan, or Erie, Pennsylvania.

#### **8) Ultimate Disposition of the Material (10 CFR 110.32(f)(5))**

The material exported under the proposed license will be returned to Canada, the country of origin. As noted above in section 5, Duratek will not import any waste for processing until Canada has issued an import license to allow waste associated with the particular import to be returned back to Canada. Any waste returned to Canada will be subject to the regulatory controls of Canada.

#### **9) Justification of License (10 CFR 110.32(f)(7))**

This license is needed to address waste generated from processing potentially contaminated metals to be imported under the proposed import license associated with this application. It is consistent with international conventions entered into by the United States.