

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](mailto: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.

<b>PART A. FOR NRC USE ONLY</b>		<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC	DATE RECEIVED <b>8/27/2008</b>
LICENSE NUMBER	DOCKET NUMBER	ADAMS ACCESSION NUMBER	

## PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS OR NOTIFICATIONS

(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>Halliburton Energy Services 2107 City West Blvd., Bldg 2 Houston, Tx 77042</b>		1a. NAME OF APPLICANT'S CONTACT <b>Cindy Dorris</b>	1b. APPLICANT'S REFERENCE NUMBER <b>HES2539</b>
		1c. PHONE NUMBER <b>(713) 839-4566</b>	1d. FAX NUMBER <b>(713) 839-4564</b>
		1e. E-MAIL ADDRESS <b>cynthia.dorris@halliburton.com</b>	
2. TYPE OF ACTION REQUESTED (Check One) <input checked="" 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 type="checkbox"/> COMBINED EXPORT/IMPORT (Parts B, C, D, E) <input type="checkbox"/> AMENDMENT/RENEWAL Existing License Number: _____			
3. CONTRACT NUMBER(S)	4. FIRST SHIPMENT DATE <b>08/31/2008</b>	5. LAST SHIPMENT DATE	6. PROPOSED EXPIRATION DATE <b>12/31/2008</b>

## 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		8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S)		9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) <b>Drillog Petro-Dynamics Limited Plot C 104 Trans Amadi Industrial Layout Port Harcourt, Rivers State Nigeria</b>	
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED		8a. INTERMEDIATE USE(S)		9a. ULTIMATE END USE(S)	
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT		10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)		10b. MAX ENRICHMENT OR WGT %	10c. MAX ISOTOPE WGT (KG) <b>NM REC'D 8/27/2008</b>
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)					

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

LICENSE NUMBER	DOCKET NUMBER	ADAMS ACCESSION NUMBER	<input type="checkbox"/> PUBLIC <b>OR</b> <input type="checkbox"/> NON-PUBLIC
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**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	13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S)	14. NAME(S) / ADDRESS(ES) OF ULTIMATE CONSIGNEE(S)	
12a. NRC EXPORT LICENSE NUMBER(S) (if applicable)	13a. LICENSE NUMBER(S) / EXPIRATION DATE(S)	14a. LICENSE NUMBER(S) / EXPIRATION DATE(S)	
	13b. INTERMEDIATE USE(S)	14b. ULTIMATE END USE(S)	
15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES  <b>Category 2 quantities of Americium-241, Americium-241/Be.</b>	15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)	15b. MAX ENRICHMENT OR WGT %	15c. MAX ISOTOPE WGT (KG)
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 PAGES 3, 4, AND/OR ON SEPARATE SHEETS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED? <input checked="" type="checkbox"/> YES <input 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  <b>Cindy Dorris, ITC Administrator</b>	18b. SIGNATURE -- AUTHORIZED OFFICIAL  <i>Cindy Dorris</i>
18c. DATE  <b>08/22/2008</b>	

*REC'D  
8/27/08*

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

LICENSE NUMBER

DOCKET NUMBER

ADAMS ACCESSION NUMBER

☐

PUBLIC

OR

☐

NON-PUBLIC

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

**Other Party(ies) to Export:**

**Halliburton Energy Services  
3000 N. Sam Houston Parkway  
Bldg M, Room M1F21  
Houston, Texas 77032-2319**

**Halliburton Energy Services  
14804 Morales Road  
Houston, Texas 77032**

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8/27/2007

# HALLIBURTON

International Trade Compliance Group  
2101 CityWest Blvd., Bldg. 2, 4th Flr • Houston, Tx 77042  
Direct: 713-839-2000 • Fax: 713-839-4564

Deputy Director,  
Office of International Programs  
U.S. Nuclear Regulatory Commission  
Mail Stop O-4E21  
11555 Rockville Pike  
Rockville, Maryland 20852

August 22, 2008

**RE: Application for New Specific License for the Export of Americium in amounts exceeding SI Limits – NRC 10 CFR, Part 110**

Deputy Director,


Halliburton Energy Services, Inc. is applying for a **specific license to export and sell** nine (9) each 18 mCi CF 252 Sources and six (6) each 2 Ci Cs-137 Sources, six (6) .2 uCi Cs-137, ten (10) each .2 Ci Americium-241/Be Sources to **Drillog Petro-Dynamics Limited** for the End User **Drillog Petro-Dynamics Limited**. These materials will be used to calibrate downhole well logging equipment for the completion of an oil or gas well prior to the production, or to enhance production of existing wells in Nigeria. These items are subject to the export licensing jurisdiction of the U. S. Nuclear Regulatory Commission. Enclosed please find Halliburton's check in the amount of \$4600.00 (Forty six hundred dollars) as the application fee for this license.

Halliburton Energy Services in consideration of Title 10, Part 110.42 (c) of the Code of Federal Regulations submits that the NRC-Controlled Items proposed for export are not inimical to the common defense and security of the United States and the proposed exports are consistent with the policies and objectives of the United States Government.

Included in the application package please find a completed and signed copy of NRC Form 7, "Application for License to Export Nuclear Material and Equipment," with attachment.

If you should have any questions please do not hesitate to call or write at the above number or address.

Sincerely,



Cindy Dorris  
Halliburton Energy Services  
Ph: 713-839-4566  
Email: [cynthia.dorris@halliburton.com](mailto:cynthia.dorris@halliburton.com)

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*8/27/08*

Enc: NRC Form 7

Halliburton Check for Application

Halliburton Energy Services Attachment

Support Documents

**Halliburton Energy Services (HES)**  
**Application Reference Number HES2539**

**Application Information:**

Halliburton is one of the world's largest providers of products and services to the oil and gas industries. Halliburton Energy Services Group (HES) offers a broad array of products and services to upstream oil and gas customers worldwide, ranging from the manufacturing of drill bits and other downhole and completion tools to pressure pumping services.

The Drilling and Formation Evaluation segment is primarily involved in drilling and evaluating the formations related to borehole construction and initial oil and gas formation evaluation. The products and services in this segment incorporate integrated technologies, which offer synergies related to drilling activities and data gathering.

**License Application and Request:**

The purpose of this license application is to request specific authorization to sell and export nine (9) each 18 mCi CF 252 source, six (6) each 2 Curie Cs-137 Source, six (6) .2 uCurie Cs-137 Source and ten (10) .2 Am241/Be to be used by the **End User: Drillog Petro-Dynamics Limited** in Nigeria. The following information is provided in support of this application and to ensure the NRC that Halliburton is in compliance with the rules and regulations set forth in the export-import provisions of the Code of Conduct in the Safety and Security of Radioactive Sources.

**Description of Equipment:**

Neutron Tools use Ambe-241/Be encapsulated source (sources). The material is placed into a special capsule that is threaded on one end. These capsules are designed to be screwed inside of an electronic wireline logging sonde. The sources are lowered into the well formations inside the sonde which is tethered on the end of a steel cable. The sonde is equipped with a transmitter and detector section.

The Ambe source emits neutron into the rock formations and the detector section accurately measures the porosity, fluid type and lithology information for real-time decision making and wireline replacement applications. Knowledge of rock properties is essential in the exploration of oil.

**Recipient's Technical and Administrative Capability, Resources, and Regulatory Structure:**

Licensed materials will be stored at approved **Drillog Petro-Dynamics Limited** facilities. These facilities are certificated by the Radiological Physics and Advisory Division in accordance with the Nigeria Nuclear Regulatory Authority and the RA Storage Control process for **Drillog Petro-Dynamics Limited** (see attached).

**Concern for Diversion:**

As noted in attached letter to Halliburton, **Drillog Petro-Dynamics Limited** has acknowledged the importance of and supports safe operations, transportation, and secure storage of RA Sources. **Drillog Petro-Dynamics Limited** states they have no intention of using the RA Sources outside India or will they release or transfer to other parties.

All sources are labeled with the name, strength, and source number. Radiation leak tests are performed monthly. Source warehouse is furnished with radioactive checking devices..

Security personnel from **Drillog Petro-Dynamics Limited** are responsible for security of the sources.

**INTERMEDIATE AND ULTIMATE CONSIGNEES:**

Drillog Petro-Dynamics Limited

<b>NRC Required Information</b>	
<b>Purchasers Name:</b>	Drillog Petro-Dynamics Limited
<b>Purchasers Physical Address:</b>	Plot C 104 Trans Amadi Industrial Layout Port Harcourt, Rivers State Nigeria
<b>Ultimate Consignee Name (s):</b>	Drillog Petro-Dynamics Limited
<b>Ultimate Consignees Physical Address:</b>	Plot C 104 Trans Amadi Industrial Layout Port Harcourt, Rivers State Nigeria
<b>End Users Name:</b>	Drillog Petro-Dynamics Limited
<b>End Users Physical Address:</b>	Plot C 104 Trans Amadi Industrial Layout Port Harcourt, Rivers State Nigeria
<b>Storage Facility P. Address:</b>	Plot C 104 Trans Amadi Industrial Layout Port Harcourt, Rivers State Nigeria

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8/27/20