

<b>NRC FORM 7</b> (02-2016) 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 FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@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>EXPIRES: 11/30/2018</b>
<b>APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S)</b> (See Instructions on Pages 4 and 5)			
<b>PART A. FOR NRC USE ONLY</b>		<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC	
		DATE RECEIVED 5-9-16	
LICENSE NUMBER PXB208.00		DOCKET NUMBER 11006226	
		ADAMS ACCESSION NUMBER	
<b>PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS</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  Halliburton Energy Services 3000 N. Sam Houston Pkwy E. Houston, TX 77032		1a. NAME OF APPLICANT'S CONTACT DJ Johnson	1b. APPLICANT'S REFERENCE NUMBER HES3197
		1c. PHONE NUMBER (713) 839-3118	1d. FAX NUMBER (713) 839-3290
		1e. E-MAIL ADDRESS dj.johnson@halliburton.com	
2. TYPE OF ACTION REQUESTED (Check One)			
<input type="checkbox"/> EXPORT (Parts B, C, E)		<input type="checkbox"/> IMPORT (Parts B, D, E)	
		<input checked="" type="checkbox"/> AMENDMENT/RENEWAL Current License Number: PXB208.00	
		<input type="checkbox"/> CONSENT REQUEST (Parts B, C) Current License Number:	
3. CONTRACT NUMBER(S)	4. FIRST SHIPMENT DATE	5. LAST SHIPMENT DATE	6. PROPOSED EXPIRATION DATE
<b>PART C. TO BE COMPLETED FOR EXPORT 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 Halliburton Energy Services Inc. 3000 N. Sam Houston Parkway E. Houston, TX 77032		8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S) Oil India Limited, Calcutta Branch ICC Building, 4 India Exchange Place, 4th Floor, Kolkata, West Bengal India 700001	
		9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) Oil India Limited P.O. Duliajan, Dibrugarh Assam India 786602	
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROVIDED		8a. INTERMEDIATE USE(S)	9a. ULTIMATE END USE(S)
		forward shipment to end user location	logging and perforating
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS; FOR NUCLEAR EQUIPMENT INCLUDE TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT  Category 2: Americium-241, Americium-241/Beryllium, Cesium-137 and Thorium-232		10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)  N/A	10b. MAX ENRICHMENT OR WGT %  N/A
			10c. MAX ISOTOPE WGT (KG)  N/A
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)			

KL JM  
5-9-16

NRC FORM 7  
(02-2016)  
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION

**APPLICATION FOR NRC EXPORT OR IMPORT  
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)**

LICENSE NUMBER <i>PXB208.01</i>	DOCKET NUMBER <i>11006246</i>	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC    OR <input type="checkbox"/> NON-PUBLIC
------------------------------------	----------------------------------	------------------------	--

**PART D. TO BE COMPLETED FOR IMPORT 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 U. S. 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	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, RENEWALS OR CONSENT REQUEST(S)**

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 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 DJ Johnson (ITC Analyst) International Trade Compliance	18b. SIGNATURE – AUTHORIZED OFFICIAL 	18c. DATE <i>5/3/16</i>
--	--	----------------------------

*WJ  
5/3/16*

NRC FORM 7  
(02-2016)  
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR NRC EXPORT OR IMPORT  
LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)

LICENSE NUMBER 8x8208.01	DOCKET NUMBER 11006226	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)

OTHER PARTY(IES) TO EXPORT (SUPPLIERS) CONTINUED:

Halliburton Export Inc.  
3000 N. Sam Houston Parkway E.  
Houston, TX 77032

Halliburton Export Inc.  
14851 Milner Road  
Gate 5, Dock SR1, Bldg. DD  
Houston, TX 77032

Halliburton Export Inc.  
14804 Morales Gate 3  
Doc 108  
Houston, TX 77032

# HALLIBURTON

---

International Trade Compliance Group  
3000 N. Sam Houston Parkway E., Bldg J, 4<sup>th</sup> Floor – Houston, TX 77032  
Direct 281-871-4000 - Fax: 281-871-6450

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

5/3/16

**RE: Application for License for the Export and Import of Category 2: Americium-241, Americium-241/Beryllium, Cesium-137 and Thorium**

**HES3197**

Deputy Director,

Halliburton Energy Services, Inc. is applying for a license to export and import Category 2: **Americium-241, Americium-241/Beryllium, Cesium-137 and Thorium** sources for shipments to India. These materials will be used to provide logging and perforating services to our clients by Halliburton Energy Services, Inc., and its subsidiaries in countries we currently conduct business in and others we may have future business in (please see Form 7 for all consignee information). These items are subject to the export-licensing jurisdiction of the U. S. Nuclear Regulatory Commission. Enclosed please find Halliburton's check, no.7323261, in the amount of \$8,000.00 (Eight Thousand Dollars, and No Cents) as the application fee for this license.

Sealed sources are a direct sale and will be in the custody of Oil India Limited, and when not in use, will be stored in a secure facility controlled by Oil India Limited and its subsidiaries.

Halliburton Energy Services, Inc., 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 (1) a completed and signed copy of NRC Form 7, "Application for License to Export Nuclear Material and Equipment," and (1) Halliburton check for license application processing.

*NR  
5/7/16*

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

Sincerely,

DJ Johnson  
Halliburton Law Department  
International Trade Compliance  
Phone: 713-839-3118  
Fax: 281-871-6450  
[DJ.Johnson@halliburton.com](mailto:DJ.Johnson@halliburton.com)

Enc: NRC Form 7  
Halliburton check for application

for  
study

## **License Application and Request:**

The purpose of this license application is to request an RA Source license to export and sell to Oil India limited.

This application criteria is based on business requirements to fulfill by Halliburton Energy Services, Inc. (HES), and its subsidiaries in the oil and gas field service work both onshore and offshore throughout the world for shipments that exceed NRC threshold limits per 10 CFR Part 110.

The regulation requires the use of the 'sum of calculations' methodology for multiple or consolidated shipments. Halliburton has several RA sources that are less than the threshold but could exceed the limits if consolidated.

## **Scope of Work:**

Halliburton Energy Services, Inc. (HES) is one of the world's largest providers of products and services to the oil and gas industries. HES offers a broad array of products and services to upstream oil and gas customers worldwide. 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 evaluations and RA sources are a necessary element to the evaluation. RA sources will be used to provide logging and perforating services to our clients worldwide.

## **Halliburton's Corporate Radiation Safety Program:**

Halliburton Energy Services, Inc. (HES), ensures compliance with radioactive source regulations by Company Policy and through the training, execution, and monitoring of our Corporate Radiation Safety Program (CRSP). The purpose of the CRSP program is to define and implement processes that minimize radiation exposure of personnel, property, and the environment resulting from working with radioactive materials and sources used by the company. Key areas covered by the program include:

- Organization and Authority Descriptions
- Radiation Safety Procedures Development and Maintenance
- Radiation Safety Training
- Radiation Exposure Control
- Procedures for Receipt, Handling, Identification, and Disposal of Radioactive Materials
- Radiological Emergencies and Incidents
- Radiation Protection Equipment Calibration and Maintenance
- Recordkeeping

It is the policy of Halliburton Energy Services, Inc. (HES) that the CRSP be executed both nationally and internationally. HES facilities located in countries with less restrictive regulations shall comply with this program as the minimum acceptable standard of radiation safety. A copy of these guidelines can be provided as required.

*RWD  
5-11-16  
JHM*

**End User Authorization to Receive and Possess the Material:**

Oil India Limited will be the end users of these materials in India.

Licensed materials will be stored at approved by Oil India Limited facilities only. All current facilities are licensed for use and storage as required by local and international law. All future facilities will also be licensed for use and storage as required by local and international law before import or exports or source are allowed.

The licensed materials are being sold to Oil India Limited and shall be used by, or under the supervision and in the physical presence of their personnel.

**RA SOURCES NEEDED FOR INDIA OIL LIMITED**

<b>ISOTOPE</b>	<b>TOTAL MAXIMUM ACTIVITY OF ALL SOURCES FOR EACH ISOTOPE</b>	<b>Source Strength</b>	<b>Total number of sources</b>	<b>End Use</b>
AM241	0.000000002	50nCi	1	Geographical Exploration, Oil and Gas well Logging
AM241	0.000000002	50nCi	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.000000019	500nCi	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.000000059	1600nCi	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.000000022	605nCi	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.000000006	1630nCi	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.000000019	500nCi	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.000000067	1816nCi	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.06586	1.78Ci	1	Geographical Exploration, Oil and Gas well Logging
CS137	0.06586	1.78Ci	1	Geographical Exploration, Oil and Gas well Logging
AM241BE	0.555	15Ci	1	Geographical Exploration, Oil and Gas well Logging
AM241BE	0.555	15Ci	1	Geographical Exploration, Oil and Gas well Logging
TH232	0.000000093	2.5uCi	1	Geographical Exploration, Oil and Gas well Logging
TH232	0.000000093	2.5uCi	1	Geographical Exploration, Oil and Gas well Logging

*Handwritten signature/initials in blue ink.*