6 pages

# Page 1 of 3

NRC FORM 7 U.S. NUC (8-2007) 10 CFR 110 APPLICATION FOR NI LICENSE, AMENDME (See Instructions	ENT, OR RE	MPORT	Estimated burden per respo submittal is reviewed to ens are satisfied. Send comm Services Branch (T-5 F52), or by internet e-mail to info Regulatory Affairs, NEOB- DC 20503. If a means used	unse to comply v sure that the app ents regarding U.S. Nuclear R collects@nrc.gr 10202, (3150-00 I to impose an in NRC may not o	with this mandatory plicable statutory, re- burden estimate egulatory Commis ov, and to the Desi (27), Office of Man nformation collectio	EXPIRES: 06/30/2009 collection request 2.4 hours. This egulatory, and policy considerations to the Records and FOIA/Privacy sion, Washington, DC 20555-0001, k Officer, Office of Information and agement and Budget, Washington, in does not display a currently valid ir, and a person is not required to		
				DATE RECE ADAMS AG	ESSION NUM	<u>3-08</u>		
PART B. TO BE COMPL (If more space is needed to	ETED FOR AL		, AMENDMENTS, R		LS OR NO			
1. NAME AND ADDRESS OF APPLICANT/LIC			PLICANT'S CONTACT			EFERENCE NUMBER		
			Cindy Dorris		HES2544			
Halliburton Energy Services			1c. PHONE NUMBER			1d. FAX NUMBER		
2107 City West Blvd., Bldg. 2 Houston, TX 77042		(7	713) 839-4566		(713) 839-4564			
110uston, 12x 77042		1e. E-MAIL ADD						
-			cynthia.dorr	is@halli	burton.co	om		
2. TYPE OF ACTION REQUESTED (Cha EXPORT NOTIFICATI (Parts B, C, E) INCIDENTA RADIOACTI MATERIAL		IMPÓRT (Parts B, D, E)	COMBINED EXPO (Parts B, C, D, E)	rt/Impor	Exist	NDMENT/RENEWAL ting License Number: BP41-1		
3. CONTRACT NUMBER(S) 4. FI	RST SHIPMENT DA	TE	5. LAST SHIPMENT DATE			D EXPIRATION DATE 0/31/2015		
PART C. TO BE COMPLETED (If more space is needed to								
7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPOR		(S) / ADDRESS(ES GN CONSIGNEE(S	) OF INTERMEDIATE		/ ADDRESS(ES	S) OF ULTIMATE S)		
				and it Unite	t's subsidi d Arab E	nergy Services laries in the mirates for ore and offshore		
		•	•					
7a. FUNCTION(S) PERFORMED/SERVICE(S) PROV	1DED 8a. INTER	MEDIATE USE(S)		9a. ULTIMATI	E END USE(S)	·····		
10. DESCRIPTION OF RADIOACTIVE MATER NUCLEAR FACILITIES, EQUIPMENT, OR NUCLEAR EQUIPMENT INCLUDE TOTAL EQUIPMENT FOR EXPORT	COMPONENTS; FO	F I	MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)	10b. MAX E OR WC	NRICHMENT	10c. MAX ISOTOPE WGT (KG) Toc d Togo Togo Togo Togo RB		
11. FOREIGN OBLIGATIONS (BY COUNTRY	AND BY PERCENTA	AGE OF MAXIMUM		I ON		RINTED ON RECYCLED PAPER		

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NRC FORM 7 (8-2007)			U.S. NUCLEAR REGL	ILATORY COM	AISSION
10 CFR 110		R NRC EXPORT/IN	IPORT		
	,	T, OR RENEWAL			
	<u>B</u> '	NDAMS ACCESSION NUMBER		NON-PU	ĴBĽIC
PART D. TO BE COMPLETED FOR	MPORT ONLY,	OR COMBINED LICEN	SES, AMENDMENTS	6, OR RENEV	WALS
(If more space is needed to comple					
12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT	13. NAME(S) / ADDRI CONSIGNEE(S)	ESS(ES) OF INTERMEDIATE	14. NAME(S) / ADDRESS(ES CONSIGNEE(S)	S) OF ULTIMATE	
		`			
		· ·			
12a. NRC EXPORT LICENSE NUMBER(S)	13a. LICENSE NUMB	ER(S) / EXPIRATION DATE(S)	14a. LICENSE NUMBER(S)	EXPIRATION DA	TE(S)
(if applicable)				· .	
	13b. INTERMEDIATE USE(S)		14b. ULTIMATE END USE(S)		
					ľ
15. DESCRIPTION OF RADIOACTIVE MATERIALS, SE NUCLEAR FACILITIES	ALED SOURCES,	15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR	15b. MAX ENRICHMENT OR WGT %	15c. MAX ISOTO WGT (KG)	PE
Category 2 quantities of Americ	ium 241	TOTAL ACTIVITY (TBq)	OR WOL 78		
and Americium-241/Be	14111-241				
16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY F	PERCENTAGE OF MAX	KIMUM TOTAL VOLUME)	<u> </u>	L	
		· · · · · · · · · · · · · · · · · · ·			
PART E. TO BE COM	PLETED FOR <u>A</u>	LL LICENSES, AMEND	MENTS, OR RENEW	ALS	
17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS?	YES NO	17a. COPIES OF RECI AUTHORIZATION		YES I	NO
		hereby certify that this appl aat all information provided			
18a. PRINT NAME AND TITLE OF AUTHORIZED OFFIC	CIAL	18b. SIGNATURE – AUTHORIZ	ED OFFICIAL	18c. DATE	
Cindy Dorris International Export Compliar	ice Admin.	Cindy D	ornis	06/30/2	2008
		<u> </u>	m.'d	. <u>.</u>	
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Page 3 of 3

NON-PUBLIC

U.S. NUCLEAR REGULATORY COMMISSION

OR

PUBLIC

NRC FORM 7 (8-2007) 10 CFR 110

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

ADAMS ACCE

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

DOCKET NUMBER

Application for the Extension of the Validity Date (expiration date) for NRC License CBP41-1 for the following Ultimate Foreign Consignees.

Halliburton Energy Services and /or it's subsidiaries onshore and offshore in the United Arab Emirates.

Halliburton Energy Services Halliburton Worldwide Ltd Dubai HWL AE Al Moosa TR 1 SH Zayed Rd Dubai, AE United Arab Emirates

Halliburton Energy Services Abu Dhabi - Storage Space Salam Street Abu Dhabi United Arab Emirates

Halliburton Energy Services ADNOC Base/ESNAAD Mussafah Base Abu Dhabi United Arab Emirates

Halliburton Energy Services Oilfield Supply Center, Ltd Jebel Ali Free Zone Building No. B-9 Dubai, AE United Arab Emirates

1-3-00 1-3-00

IMPORT AND EXPORT LICENSE				
NRC FORM 250P (12/05) Inited States of Ame Nuclear Regulatory Commission Washington, D.C. 20555 Pursuant to the Atomic Energy Act of 1954, as amended, and the regulation thereto, and in reliance on statements and representations heretofore made licensee to import and/or export the byproduct materials listed below, subject licensee maintains the requisite NRC or Agreement State domestic licensees	n LICENSE EXPIRES: July 31, 2008 CBP 4/-Q Page 1 of 3 Ins issued by the Nuclear Regulatory Commission (NRC) pursuant by the applicant/licensee, this license is hereby issued authorizing the ct to the terms and conditions herein. This license is only valid if the			
LICENSEE Halliburton Energy Services ATTN: Cindy Dorris 2101 City West Blvd., Bldg 2 Houston, Texas 77242	ULTIMATE FOREIGN CONSIGNEE(S) Listed on Page 3.			
APPLICANT'S REFERENCE: HES4023 INTERMEDIATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES) AND/OR IN THE U.S.	OTHER PARTY(IES) TO IMPORT/EXPORT			
NONE	NONE			
DESCRIPTION OF 10 CFR PART 110, APPENDIX P, BYPROD (NOTE: SEE PAGE 2 FOR DEFINITIONS) Import and export, from and to United Arab Emirates, C Americium-241/Beryllium, contained in sealed sources of Sealed sources will remain in the custody of either Hallil Arab Emirates at all times, and, when not in use, will be Halliburton Energy Services or its subsidiaries in United Licensee is responsible for compliance with all applicable requirements, including all terms and conditions of dome License expiration date is based on shipment dates and This license replaces CBP0041 and amends its authority July 31, 2008.	OF CATEGORY 1 AND CATEGORY 2)         Category 2 quantities of Americium-241 and for use in oil and gas well logging operations.         burton Energy Services or its subsidiaries in United stored in a secure facility controlled either by Arab Emirates.         Le import, export, and other domestic regulatory estic materials license(s).         I contingency period.         Y to extend the expiration date from May 31, 2007 to BY AUTHORIZED NRC REPRESENTATIVE         Wise         THIS LICENSE IS INVALID UNLESS SIGNED BELOW BY AUTHORIZED NRC REPRESENTATIVE			
This license is subject to the right of recapture or control by Section 108 of th Atomic Energy Act of 1954, as amended, and to all of the other provisions of Act, now or hereafter in effect and to all valid rules and regulations of NRC. IMPORT AND EXP	said NAME AND TITLE: Stephen Dembek Acting Deputy Director Office of International Programs DATE OF ISSUANCE: July 18, 2007			
	UNI LICENSE			

### Table 1: Appendix P to Part 110-Category 1 and Category 2 Radioactive Material Threshold Limits

Page 2 of 3 CRPYL)

Radioactive Material	Category	1	Category 2		
	Terabequerels	Curies	Terabequerels	Curies	
	(TBq)	(Ci) <sup>1</sup>	(TBq)	(Ci)1	
Americium-241	60	1,600	0.6	11	
Americium-241/Be	60	1,600	0.6	1	
Californium-252	20	540	0.2	5.4	
Curium-244	50	1,400	0.5	1.	
Cobalt-60	30	810	0.3	<b>8</b> .	
Cesium-137	100	2,700	1.0	2	
Gadolinium-153	1,000	27,000	10.0	27	
Iridium-192	80	2,200	0.8	2:	
Plutonium-238 <sup>2</sup>	60	1,600	0.6	1	
Plutonium-239/Be2	60	1,600	0.6	10	
Promethium-147	40,000	1,100,000	400	11,00	
Selenium-75	200	5,400	2.0	54	
Strontium-90. (Y-90) -	1,000	27,000	10.0	27(	
Thulium-170	20,000	540,000	200	5,400	
Ytterbium-169	300	8,100	3.0	8	

#### Calculation of Shipments Containing Multiple Sources or Radionuclides:

The "sum of fractions" methodology for evaluating combinations of radionuclides being transported, is to be used when import or export shipments contain multiple sources or multiple radionuclides. The threshold limit values used in a sum of the fractions calculation must be the metric values (i.e., TBq).

I. If multiple sources and/or multiple radionuclides are present in an import or export shipment, the sum of the fractions of the activity of each radionuclides must be determined to verify the shipment is less than the Category 1 or 2 limits of Table 1, as appropriate. If the calculated sum of the fractions ratio, using the following equation, is greater than or equal to 1.0, then the import or export shipment exceeds the threshold limits of Table 1 and the applicable security provisions of this part apply.

II. Use the equation below to calculate the sum of the fractions ratio by inserting the actual activity of the applicable radionuclides or of the individual sources (of the same radionuclides) in the numerator of the equation and the corresponding threshold activity limit from the Table 1 in the denominator of the equation. Ensure the numerator and denominator values are in the same units and all calculations must be performed using the TBq (i.e., metric) values of Table 1.

R1 = activity for radionuclides or source number 1

R2 = activity for radionuclides or source number 2

RN = activity for radionuclides or source number n

AR1 = activity limit for radionuclides or source number 1 AR2 = activity limit for radionuclides or source number 2

ARN = activity limit for radionuclides or source number n

 $\sum_{i=1}^{n} \left[ \frac{\mathbf{R}_{i}}{\mathbf{A}\mathbf{R}_{1}} + \frac{\mathbf{R}_{2}}{\mathbf{A}\mathbf{R}_{2}} + \frac{\mathbf{R}_{n}}{\mathbf{A}\mathbf{R}_{n}} \right] \geq 1$ 

**NOTIFICATIONS:** The notifications required by 10 CFR 110.50(b)(4) are to be emailed to hoo1@nrc.gov (preferred method) or faxed to 301-816-5151. In the subject line of the email or on the fax cover page include: "10 CFR 110.50(b)(4) Notification." To contact someone in the Operations Center, use the same e-mail address or call 301-816-5100. The contact information is current at the time of license issuance. Difficulties notifying the U.S. Nuclear Regulatory Commission must be promptly reported to the Office of International Programs' Import/Export licensing staff.

<sup>&</sup>lt;sup>1</sup> The values to be used to determine whether a license is required are given in TBq. Curie (Ci) values are provided for practical usefulness only and are rounded after conversion.

 $<sup>^2</sup>$  The limits for Pu-238 and Pu-239/Be in this table apply for imports to the U.S. The limits for exports of Pu-238 and Pu-239/Be can be found in § 110.21.

CBP41-2

CBP41-1 Page 3 of 3

## ULTIMATE FOREIGN CONSIGNEE(S)

- Dubai HWL AE Halliburton Worldwide LTD Al Moosa TR 1 SH Zayed Rd Dubai, AE United Arab Emirates
- 2. Halliburton Energy Services Abu Dhabi- Storage Space Salam Street Abu Dhabi United Arab Emirates

- Halliburton Energy Services ADNOC Base/ESNAAD Mussafah Base Abu Dhabi United Arab Emirates
- Oilfield Supply Center, LTD Jebel Ali Free Zone Building No. B-9 Dubai, AE United Arab Emirates