### NRC FORM 7

#### U. S. NUCLEAR REGULATORY COMMISSION

(01-05-2023) 10 CFR 110

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

(See Instructions on Pages 4 and 5)

#### APPROVED BY OMB: NO. 3150-0027

EXPIRES: 05/31/2025

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, Library, and Information Collections Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollects. Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0027), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503; email: <a href="mailto:oira.submission@omb.eop.gov">oira.submission@omb.eop.gov</a>. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid

				OWB control number.						
PART A. FOR NRC	ART A. FOR NRC USE ONLY		ublic OR Non-Public		Date Re	ate Received 7/19/2023 CTS				
License Number PXB245.00 Docke		Docket Numb	11006571		Adams	dams Accession Number				
PART B. TO BE COMPLETED FOR <u>ALL</u> LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)										
Name and Address of Applicant/Licensee			1a. Name of Applicant's Contact			1b. Applicant's Reference Number				
Halliburton Energy Se		Kateri Noel	el		HES3458					
3000 N. Sam Houstor Houston, TX 77032		1c. Office Teleph (713)839-4	•		1d. Office Facsimile Telephone Number					
		1e. Applicant's Email Address kateri.noel@halliburton.com								
2. Type of Action Requested Export (Parts B, C, E		, E)	Amendment/Renewal Current License Number:							
	Import (Parts B, D, E)		Consent Request (Parts B, C) Current License Number:							
3. Contract Number(s)		•		4. First Shipment Date	5. La	ast Shipment Date	6. Proposed Expiration Date			
PART C. TO BE COMPLETED FOR EXPORT 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 U. S other U. S. Parties to the Ex		,	Name(s)/Address(es) of Intermediate     Foreign Consignee(s)			Name(s)/Address(es) of Ultimate Foreign     Consignee(s)				
Halliburton Energy Services Inc. 14851 Milner Rd. Gate 5 A Dock SR-1/SR-2 Houston, TX 77032		Bregue 1438 B Netherl	Special Cargo Services BV Breguetlaan 9 1438 BA Oude Meer Netherlands			Halliburton Worldwide Ltd. C/O Basra Oil Company Oil Operation Street Burjesia Area Basra, Iraq				
			Intermediate Use(s) eight Forwarder			9a. Ultimate End Use(s) Oil Gas and Well Logging				
Description of Radioactive Materials, Sealed Sources, Nuclear F. Equipment, or Components; for Nuclear Equipment include Total of Equipment for Export				0a. Maximum Total Volum Element WGT (KG), or Total Activity (TBq)		Max Enrichment or WGT%	10c. Max Isotope WGT (KG)			
Category 2: Americium-241, Americium-241/Be Cobalt 60, Cesium-137			ryllium, N	N/A	N/A	4	N/A			
11. Foreign origin or obligations	s by country and, if know	tage of maximum	total volume (leave blank	or bypro	duct licenses)					

## NRC FORM 7 U. S. NUCLEAR REGULATORY COMMISSION (01-05-2023) 10 CFR 110 APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued) License Number PXB245.00 Docket Number Adams Accession Number 11006571 Χ Public **OR** 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 13. Name(s)/Address(es) of Foreign or U. S. 14. Name(s)/Address(es) of Ultimate other Foreign Parties to Import Intermediate Consignee(s) 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. Maximum Total Volume/ 15b. Max Enrichment 15c. Max Isotope Element WGT (KG), or or WGT% WGT (KG) Total Activity (TBq) 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) (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.) 17. Additional Information provided on pages 3, 4, and/or separate sheets? 17a. Copies of Recipient's Authorizations Provided? No No 18. Certification: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge. 18b. Signature -- Authorized Official 18a. Print Name and Title of Authorized Official 18c. Date Kateri Noel Digitally signed by Kateri Noel Date: 2023.07.18 09:21:44

International Trade Compliance Analyst

Kateri Noel

# RA SOURCES NEEDED FOR IRAQ

ISOTOPE	ACTIVITY PER SOURCE, TBq	Quantity	TOTAL ACTIVITY FOR ALL SOURCES, TBq	END USE
Am-241	1.85E-07	6	1.11E-06	Electric Line Logging
Cs-137	1.85E-08	6	1.11E-07	Electric Line Logging
Cs-137	5.92E-08	6	3.55E-07	Electric Line Logging
Cs-137	0.06586	6	3.95E-01	Electric Line Logging
Am-241/Be	0.555	6	3.33	Electric Line Logging
Am-241	0.00555	10	5.55E-02	Electric Line Logging
Co-60	3.70E-08	100	3.70E-06	Electric Line Logging



3000 N. Sam Houston Parkway E. Houston, TX 77032-3219 Tel: 713-839-4929 • E-mail: Kateri.noel@halliburton.com

Deputy Director, Office of International Programs U.S. Nuclear Regulatory Commission Mail Stop O-4E21 11555 Rockville Pike Rockville, Maryland 20852 July 17, 2023

RE: Application for License for the Export of Americium-241, Americium-241/Beryllium, Cobalt 60 and Cesium-137

**HES3458** 

Deputy Director,

Halliburton Energy Services, Inc. is applying for a license to export Category 2: Americium-241, Americium-241/Beryllium, Cobalt 60 and Cesium-137 sources for shipments to Iraq. These materials will be used to provide logging and perforating services to Halliburton Worldwide Ltd. C/O Basra Oil Company. These items are subject to the export-licensing jurisdiction of the U.S. Nuclear Regulatory Commission.

Sealed sources will always remain in the custody of Halliburton Worldwide Ltd., and when not in use, will be stored in a secure facility controlled by Halliburton Energy Services 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 this application please find a completed and signed copy of NRC Form 7, a copy of the Radioactive Source (RA) Control and Accountability, and a Schematic of storage facility.

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

Sincerely,

Kateri Noel Halliburton Law Department International Trade Compliance Phone: 713-839-4929 Kateri.flynn@halliburton.com

## **License Application and Request:**

The purpose of this license application is to request an RA Source license to export to Iraq.

This application is based on Halliburton Worldwide Ltd. business requirements to fulfill oil and gas service contract work.

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 in Iraq.

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

Halliburton Energy Services, Inc. (HES), and Halliburton Worldwide Limited ensure 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.

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

Halliburton Energy Services, Inc. (HES), subsidiary Halliburton Worldwide Limited will be the end users of these materials in Iraq.

Licensed materials will be stored at approved by Halliburton Energy Services, Inc. (HES), and its subsidiary Halliburton Worldwide 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 exports or source are allowed.

The licensed materials shall be used by, or under the supervision and in the physical presence of the Halliburton Energy Service's Radiation Safety Officer, or individuals who have been trained as specified in Halliburton's materials license of individuals designated as users.

Random compliance audits check the effectiveness of each facility's radiation safety program maintenance while providing oversight by the Global Radiation Safety Group. The audit covers all major aspects of all the radioactive material usage. This audit is conducted by a Global Radiation Safety Officer (GRSO), and Associated Radiation Safety Officer (ARSO), a Region Radiation Safety Manager, or a qualified individual designated by a GRS).

#### **Concern for Diversion:**

The RA sources authorized for export under this license will only be used by trained employees of Halliburton Energy Services, Inc. and trained employees of its subsidiaries.

Halliburton's Corporate Radiation Safety Program provides auditable processes for storage, usage, transportation, monitoring, and recordkeeping for all radioactive sources as well as training and internal management review to ensure the safety of the people and the environment.

All movements of radioactive sources are pre-screened, and approvals are required prior to shipment by the Radiation Safety Group and the International Trade Compliance Department.

The RA sources authorized for export will not be used for any nuclear activities or by any nuclear end users.

The commodities will not be resold without prior approval and notification as required by the NRC and local regulations.

Halliburton Energy Services, Inc. and its subsidiaries has consistently maintained, monitored, and reported to the Nuclear Regulatory Commission on all licenses related to the control of radioactive materials.