

# APPLICATION FOR LICENSE TO EXPORT NUCLEAR MATERIAL AND EQUIPMENT

(See Instructions on Reverse)

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](mailto:infocollect@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOF-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.

1. APPLICANT'S USE	a. DATE OF APPLICATION 10/28/2005	b. APPLICANT'S REFERENCE	2. NRC USE	a. DOCKET NUMBER	b. LICENSE NUMBER CBP0004
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3. APPLICANT'S NAME AND ADDRESS

a. NAME Baker Hughes Oilfield Operations, Inc.  
Attn: Jim Elrod Radiation Safety Officer

4. SUPPLIER'S NAME AND ADDRESS  
(Complete if applicant is not supplier)

a. NAME Not applicable

b. STREET ADDRESS (Facility Site)  
2001 Rankin Road

c. CITY Houston  
d. STATE TX  
e. ZIP CODE 77073

b. STREET ADDRESS

f. TELEPHONE NUMBER 713-625-5930  
g. FAX 713-625-5858  
h. E-MAIL Attach. C

c. CITY  
d. STATE  
e. ZIP CODE

5. FIRST SHIPMENT SCHEDULED Jan-06	6. FINAL SHIPMENT SCHEDULED 12/28/2014	7. APPLICANT'S CONTRACTUAL DELIVERY DATE Numerous	8. PROPOSED LICENSE EXPIRATION DATE 12/28/2014	9. CONTRACT NO. See Cover Letter
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10. ULTIMATE FOREIGN CONSIGNEE

a. NAME See Attachment C and Cover Letter

11. ULTIMATE END USE  
(Include plant or facility name)

Oil well logging in various oilfields. (See Cover Letter)

b. STREET ADDRESS (Facility Site)

c. CITY  
d. COUNTRY

11a. DATE REQUIRED Various times after January 1, 2006

12. INTERMEDIATE FOREIGN CONSIGNEE

a. NAME Not applicable

13. INTERMEDIATE END USE

Not Applicable

b. STREET ADDRESS (Facility Site)

c. CITY  
d. COUNTRY

13a. DATE REQUIRED

14. INTERMEDIATE FOREIGN CONSIGNEE

a. NAME Not applicable

15. INTERMEDIATE USE

Not Applicable

b. STREET ADDRESS (Facility Site)

c. CITY  
d. COUNTRY

15a. DATE REQUIRED

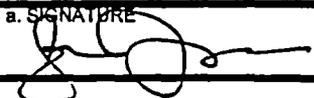
16. COM CODE	17. DESCRIPTION (Include chemical and physical form of nuclear material; give dollar value of nuclear equipment and components)	18. MAX ELEMENT WEIGHT	19. MAX. WT/ %	20. MAX. ISOTOPE WEIGHT	21. UNIT
N/A	Special Form, Sealed, Oil Well logging Source (OWL) Containing: Americium 241 Beryllium				Total Qty of [632] (See Cover Letter)

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

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

See Cover Letter and Attachment B

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 Steven Thompson Vice President
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2005 NOV 15 PM 4: 26



Baker Atlas

2001 Rankin Road  
Houston, Texas 77073  
P.O. Box 1407 (77251-1407)  
Tel 713-625-6337  
Fax 713-625-5857  
Email jan.farley@bakerhughes.com

Jan E. Farley  
Vice President - Law

## PUBLIC VERSION

### WITHHOLDING OF INFORMATION REQUESTED UNDER 10 C.F.R. § 2.390

October 28, 2005

Nuclear Regulatory Commission  
Office of International Programs  
11555 Rockville Pike  
Rockville, Maryland  
Attn: Steven Dembeck

Re: Request to Export, Re-Export, and Import Certain Byproduct Material

To Whom It May Concern:

Baker Hughes Incorporated hereby submits this request for a specific license, pursuant to 10 C.F.R. Part 110, to allow it to export, re-export, and re-import U.S.-origin americium-241 beryllium byproduct material ("Am-241/Be sources" or "sources"), as specified below. This request has been prepared to take into account the recent revisions to the Nuclear Regulatory Commission ("NRC") export licensing framework to implement the Atomic Energy Agency Code of Conduct on the Safety and Security of Radioactive Sources ("Code of Conduct"). See 70 Fed. Reg. 37,985 (July 1, 2005).

The Am-241/Be sources in question are encapsulated in oil well logging equipment owned and operated by Baker Hughes, and used to perform oilfield services in locations around the world. Many of the sources covered in this license request are currently located overseas, having been exported pursuant to the general license set forth in the current version of 10 C.F.R. § 110.23(a)(3). The sources and their end use are described in further detail below.

Baker Hughes seeks to obtain the flexibility to ship its equipment, including the Am-241/Be sources, to and from the countries where it operates in a manner that allows Baker Hughes (1) to meet its ongoing commercial obligations (including the time-sensitive nature of customer service requests in the oil and gas industry); (2) to efficiently re-import sources to the United States when required for re-certification, or when the sources are not in use; and (3) to ensure the maximum safety and security of

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the company's inventory of sources (including its desire to have a minimum number of sources overseas at any given time). The license requested herein would accomplish those objectives, and would also effectively ensure the United States' full commitment to and compliance with applicable Code of Conduct procedures, as reflected in the recent revisions to Part 110 of the NRC regulations.

Enclosed with this letter are a completed NRC Form 7 and additional materials. This letter is intended to supplement the information provided in the enclosed Form 7.

## **I. Applicant Information (NRC Form 7, question 3)**

Baker Hughes Incorporated is a Delaware corporation and is headquartered in Houston, Texas. This application is submitted on behalf of Baker Hughes Incorporated and all of its subsidiaries, affiliates, and operating divisions (collectively, "Baker Hughes"). The "applicant" listed in the attached Form 7 is Baker Hughes Oilfield Operations ("BHOO"), Inc., a California corporation headquartered in Houston, Texas. BHOO is the exporter/importer of record in the United States for all of Baker Hughes's Am-241/Be importing and exporting activities.

Baker Hughes is a leading supplier of oil and gas industry equipment and services worldwide. Among other activities, Baker Hughes provides electrical wireline logging ("EWL") services in over forty countries to customers in the oil and gas exploration and production industry. Those services are offered through an unincorporated operating division within the company known as "Baker Atlas." The Am-241/Be sources covered in this license request are used in Baker Atlas operations to perform EWL services.<sup>1</sup>

## **II. Description of Sources Covered In License Request, and End Use (NRC form 7, question 4, 10-20, 23)**

The sources covered in this license request are individual [REDACTED] Am-241/Be sources, each of which is double-encapsulated in "compensated neutron" well logging instruments.<sup>2</sup> The instruments are used by Baker Atlas in the EWL process, in connection with other equipment, to measure the porosity and other parameters of the rocks surrounding a well hole. (Good porosity indicates an ability to hold large amounts of oil in the rock.) Specifically, the compensated neutron tool is lowered into oil and gas wells on a metal electrical cable, which in turn is connected to a special truck containing a computer data acquisition and measurement system. (For offshore services, a "skid" unit is used instead of a

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<sup>1</sup> Additional corporate information on Baker Hughes and Baker Atlas can be viewed at the following web link: [www.bakerhughes.com](http://www.bakerhughes.com).

<sup>2</sup> The AM-241/Be sources used in Baker Hughes's EWL equipment currently are purchased from a U.S. supplier, QSA Global, Inc. (formerly AEA Technologies), in Burlington, Massachusetts.

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truck, but with similar measurement equipment.) The measuring system provides detailed geological data on the well, which is used for various commercial purposes. The EWL process, including the use of neutron-emitting sources, has been employed globally in the oil and gas industry since the 1970s and constitutes a standard and widely-used industry practice.<sup>3</sup>

The crew of Baker Atlas's EWL units are made up of a logging engineer and one or more operators, all of whom are employed by Baker Hughes. Baker Hughes maintains detailed custody and control procedures to ensure the security and safe use, including secure transportation, of the sources by crew members at all times.<sup>4</sup> Those procedures are described in detail in Attachment B.

As discussed below, the sources covered in this license request would be owned by Baker Hughes, and operated at all times exclusively by Baker Hughes personnel within the Baker Atlas division. The sources would be used exclusively in services contracts between Baker Hughes and its customers. Neither customers nor any other persons outside Baker Hughes have any right of access to, or use of, the company's sources, or any option to purchase the sources.

### III. Scope of License Request (NRC Form 7, Questions 5-10, 21, 23)

Baker Hughes currently has approximately [ ] Am-241/Be sources in various locations worldwide (including, at present, [ ] sources in the United States and [ ] abroad). Most of those sources have been exported, re-exported, and re-imported pursuant to general licenses contained in the current NRC export regulations. See 10 C.F.R. §§ 110.23(a)(3), 110.27(a). Under the Code of Conduct revisions to the NRC regulations, specific licenses would be required, for the first time, for the import or export of those sources to or from the United States.<sup>5</sup>

The objective of this license request is to allow Baker Hughes to continue to have the flexibility to perform its work, while ensuring full compliance with Code of Conduct procedures. The scope of the license request is specified below.

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<sup>3</sup> Attachment A contains a brief slide presentation showing graphics and photos of EWL equipment and the EWL process.

<sup>4</sup> The only time Baker Hughes does not maintain actual possession of the sources is when they are en-route in shipment. For its shipments, Baker Hughes uses common carriers who are certified for the shipment of hazardous materials, and are subject to pertinent international and foreign national shipping regulations.

<sup>5</sup> The sources are [REDACTED] each, and thus exceed the threshold set forth in Category 2 of the new Appendix P to the NRC import/export regulations. See 70 Fed. Reg. at 37,993.

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## 1. Request to Export and Re-Export Sources

### a. *Number of Sources Covered in License Request*

The export and re-export authority requested herein would cover (1) all [ ] Am-241/Be sources currently in Baker Hughes's possession, and (2) [ ] additional new sources that will be required by Baker Hughes for use in overseas locations over the next 9 years ([ ]). The sources all are identical [ ] sources, double-encapsulated in the above-referenced EWL equipment.

### b. *Countries Covered in License Request*

Attachment C sets forth a list of all of the countries where the Baker Atlas division currently has permanent bases and regularly uses the Am-241/Be sources.<sup>6</sup> Attachment C also includes a number of countries where Baker Hughes does not maintain permanent bases, but where it performs (or may in the future perform) EWL work remotely for customers located in those countries.<sup>7</sup> We request authority to export and re-export the above-referenced sources to all of the countries set forth in Attachment C.

Should Baker Atlas be required to ship sources to any country not identified in Attachment C, it will request a separate license from NRC for such exports or re-exports, to the extent required under the applicable regulations.

### c. *Conditions of Use*

Baker Hughes proposes the following conditions on its export and re-export of the sources in question, which will ensure the ongoing safety and security of the Am-241/Be sources:

First, Baker Hughes will maintain constant possession, ownership, and control of the sources at all times, in all of the countries within the scope of this license request. *Baker Hughes will not transfer*

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<sup>6</sup> The "ultimate foreign consignees" set forth in this license request, pursuant to NRC Form question 10, are the foreign Baker Hughes corporate entities from which the Baker Atlas division operates. Those offices, and their business addresses, are set forth in Attachment C.

<sup>7</sup> The attached list of countries does not include business addresses for the foreign countries where Baker Hughes does not maintain ongoing operations. Baker Hughes does not itself know where in those countries it will be required to use its sources until a given business opportunity arises. For those countries, sources would be shipped from nearby non-U.S. locations, as needs arise, and would be kept in the countries, under Baker Hughes' ongoing custody and control, only for as long as is required to perform the work assignments.

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*the sources to any third party without first requesting and obtaining any necessary prior approval from NRC.*

Second, Baker Hughes will maintain strict access, custody, and control procedures for the sources, in all countries where the sources are stored, used, or transported. Those procedures, which are set forth in detail in Attachment B, have been utilized by Baker Hughes for many years in the past, providing what Baker Hughes believes to be an industry-leading standard of security and safety for employees and the general public. Baker Hughes will ensure ongoing observance of those procedures at all times, in all locations, and by all persons with access to the sources.

#### *d. Documentation Requirements Under New Regulations*

In furtherance of the requested license, Baker Hughes would provide prior notification and documentation to NRC, in accordance with revised 10 C.F.R. § 110.50(b)(4), before exporting from the United States any of the sources covered under the license.

We note that under revised 10 C.F.R. § 110.32(h), export license applicants are required to provide "pertinent documentation demonstrating that the recipient of the radioactive material has the necessary authorization under the laws and regulations of the importing country to receive and possess the material." Such documentation is not available to Baker Hughes at this time, as the necessary third-country import documentation is, in most circumstances, not obtainable from the foreign governments until shortly before the products are to be exported.<sup>8</sup> In other cases, such documentation is not provided by the foreign government to Baker Hughes until *after* the source reaches the country of import.<sup>9</sup> Baker Hughes is, however, committed to obtaining all necessary foreign country import authorization in all instances, and would provide relevant documentation to NRC as soon as that documentation becomes available to Baker Hughes. In cases where the documentation is made available by the foreign government prior to actual export (which would be the overwhelming majority of instances), Baker Hughes would provide the documentation to NRC before exporting the sources, pursuant to the prior notification provisions in 10 C.F.R. § 110.50(b)(4). In cases where documentation is not available until after export, Baker Hughes would provide the documentation to NRC immediately upon receipt of the materials from the foreign government.

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<sup>8</sup> Included in Attachment E are samples of the foreign government licenses that Baker Hughes has obtained for its Am-241/Be sources.

<sup>9</sup> Baker Hughes is currently aware of five countries covered in this license request that have, or have had in the past, such procedures: [ . ]. It is Baker Hughes's experience, however, that countries often change their procedures, so it is possible that some of the countries identified here have since altered their procedures.

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We ask that NRC consider those proposed procedures sufficient for purposes of the documentation requirements in 10 C.F.R. § 110.32. Under our proposed framework, NRC would receive full documentation for *all* of Baker Hughes' shipments. As discussed in further detail below, Baker Hughes does not know far in advance when and where it will be required to ship a given source, and thus cannot obtain foreign government authorizations until shortly before it is required to export its products. If Baker Hughes were required to provide foreign government authorization documentation to NRC in a specific license application, it effectively would be compelled to apply for separate specific licenses for virtually all of its exports. Such a requirement would, as discussed in further detail below, pose a substantial burden on Baker Hughes commercially, and would not contribute to the security or safe use of the sources.

We note, in this respect, that under revised 10 C.F.R. § 110.42(e)(4), NRC may grant a license in the absence of specific documentation evidencing "the recipient's authorization to receive and possess the material to be exported," in cases where "exceptional circumstances" exist. The term "exceptional circumstances" is defined to include cases where the exporter "maintains control of the radioactive material throughout the period the material is outside of the U.S. and removes the material at the conclusion of this period." 70 Fed. Reg. at 37,991 (revised 10 C.F.R. § 110.2). Baker Hughes's proposed exports and re-exports would fall squarely into that definition. As noted above, Baker Hughes would maintain, at all times, exclusive control of the Am-241/Be sources. Accordingly, under the terms of the new export regulations, the absence of full documentation in this license request regarding foreign country authorizations does not restrict NRC from granting the requested authorization.

## 2. Request to Re-Import Sources

Baker Hughes often is required to re-import its Am-241/Be sources into the United States for purposes of re-certification, and also has an internal corporate policy of storing sources in the United States whenever they are not in active use overseas. In furtherance of those objectives, which contribute to the security and safe use of the sources, Baker Hughes requests NRC authorization to re-import any of the above-referenced sources into the United States, at any time during the duration of the proposed license.

As with the requested export and re-export authorization, Baker Hughes commits to maintaining full ownership and control of the sources while they are in the United States. Baker Hughes would store the sources in secure company facilities in Houston, Texas, which are licensed by NRC to possess the sources.<sup>10</sup> The sources would be stored at a specialized radiation storage facility at Baker Hughes's Houston Technology Center facilities, located at 2001 Rankin Rd., Houston, Texas 77073.

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<sup>10</sup> Included in Attachment D is a copy of Baker Hughes's materials license from NRC, authorizing Baker Hughes to possess Am-241/Be sources for a 9-year period; we seek authorization from NRC for the same period.

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In accordance with revised 10 C.F.R. § 110.50(b)(4), Baker Hughes would provide prior notification to NRC in advance of any import shipment. Such prior notification would include all of the information required under revised section 110.50(b)(4)(ii), and would also include pertinent documentation showing that Baker Hughes has authorization from the foreign exporting country to ship the source to the United States, thus satisfying the documentation requirements in revised 10 C.F.R. § 110.32(g).

### 3. Term of Requested License, Delivery Dates

Baker Hughes requests that NRC grant it authorization to export and/or re-export any of the above-referenced sources to Baker Hughes personnel, for EWL-associated end uses, at any time to the countries listed in Attachment C, and to re-import those sources at any time to Baker Hughes's above-referenced facilities in Houston, Texas. We request that such authorization be extended over a period of 9 years, consistent with the length of Baker Hughes's NRC materials license (Attachment D).

## IV. Reasons For Approving License Request

Under the new regulations, NRC has authority to issue "broad specific export and import licenses for multiple radionuclides, shipments, and destinations and with authorizations valid for multiple years." 70 Fed. Reg. at 37987; 10 C.F.R. § 110.31(e). The granting of the license requested herein would be essential to Baker Hughes from a commercial standpoint, and would not be inimical to the common defense and security of the United States.

In the highly competitive market for EWL services, Baker Hughes frequently is required to export EWL tools from the United States, and to move tools from Baker Atlas facilities in one country to another, in an extremely short timeframe -- normally as little as one week or less. [

] If Baker Hughes is required to apply for a specific NRC license every time it must ship a tool containing an Am-241/Be source to a foreign country, it would have to forfeit a substantial number of overseas opportunities to foreign companies, many of whom are not subject to similar export and re-export restrictions.<sup>11</sup> A case-by-case licensing burden also would come at an enormous licensing cost to the company, given the large number of sources that Baker Hughes requires to meet its commercial demands (each of which would cost as much as \$12,800 to license in NRC application fees alone).

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<sup>11</sup> Notably, the EWL source used by one of Baker Hughes' principal foreign competitors uses an Am-241/Be source that is less than [REDACTED] and therefore below the Category 2 threshold.

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[.

]

Baker Hughes's continuous and exclusive custody and control of the sources would ensure that the sources are managed safely and protected securely at all times. As noted above, the custody and control procedures employed by Baker Hughes are, in the company's estimation, among the strongest in the industry. Moreover, as discussed above, none of the Am-241/Be sources will be transferred, at any point in time, to persons outside of Baker Hughes. The sources are, and will remain, Baker Hughes property throughout the duration of the requested license, and subject to Baker Hughes' exclusive right to control.

Finally, we recognize the possibility that, among the countries set forth in Attachment C, there may be some countries that do not currently have adequate Code of Conduct controls or procedures in place. For those countries, we ask NRC to recognize Baker Hughes's continual custody and control of the sources as an "exceptional circumstance" under revised 10 C.F.R. §§ 110.2 and 110.42(e)(4), warranting the issuance of the license requested herein for those countries.

## V. Request for Withholding of Confidential Information

This document, and the attachments thereto, contain proprietary information which we request the withholding of pursuant to 10 C.F.R. § 2.390. Specifically, the information contains confidential commercial information involving Baker Hughes' operations, the disclosure of which would cause commercial harm to Baker Hughes. Enclosed with this letter is an affidavit providing the information required under 10 C.F.R. § 2.390. We request that NRC withhold from public disclosure the information designated as confidential, as specified in the attached affidavit.

## VI. Conclusion

Enclosed with this letter is a completed NRC Form 7 and other supplementary materials, in addition to the required licensing fee. If you have any questions regarding this license request or require any additional information to perform your review, please do not hesitate to contact me at the telephone number and email address provided in the letterhead above. In addition, you may also speak with our

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Washington, D.C. outside legal counsel regarding this matter, Edward Krauland (ekrauland@steptoe.com; 202-429-8083) and David Lorello (dlorello@steptoe.com; 202-429-6757) at Steptoe & Johnson LLP. Mr. Krauland and Mr. Lorello have been assisting us on this matter, and can answer any questions you might have.

Sincerely,



Jan Farley  
Vice President - Law  
Baker Atlas Division  
Baker Hughes Incorporated

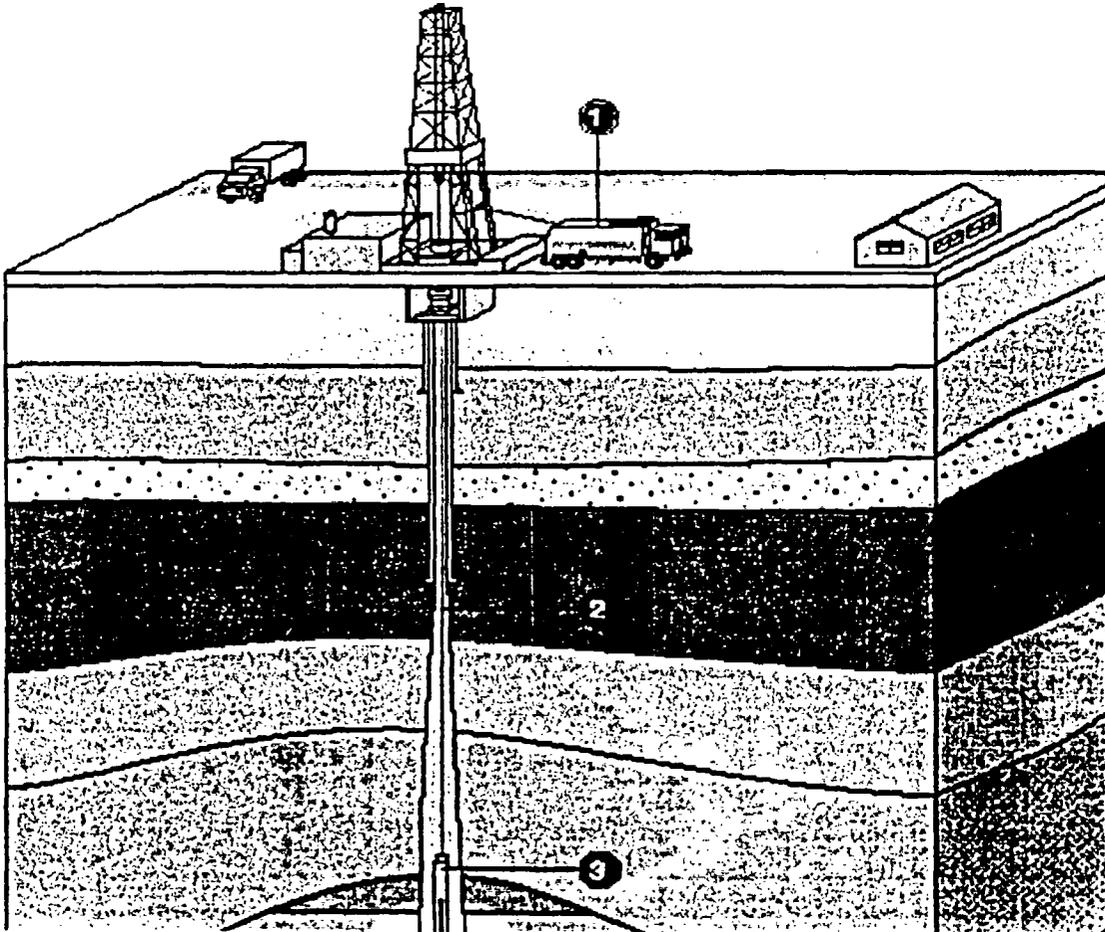
**Attachments:**

- A: EWL process / equipment slide presentation
- B: Baker Hughes custody and control procedures
- C: list of countries subject to license request, Baker Hughes entities that would possess and use Am-241/Be sources covered under license request
- D: copy of Baker Hughes NRC materials license
- E: sample Baker Hughes foreign licenses
- F: 10 C.F.R. § 2.390 affidavit

**PUBLIC VERSION**

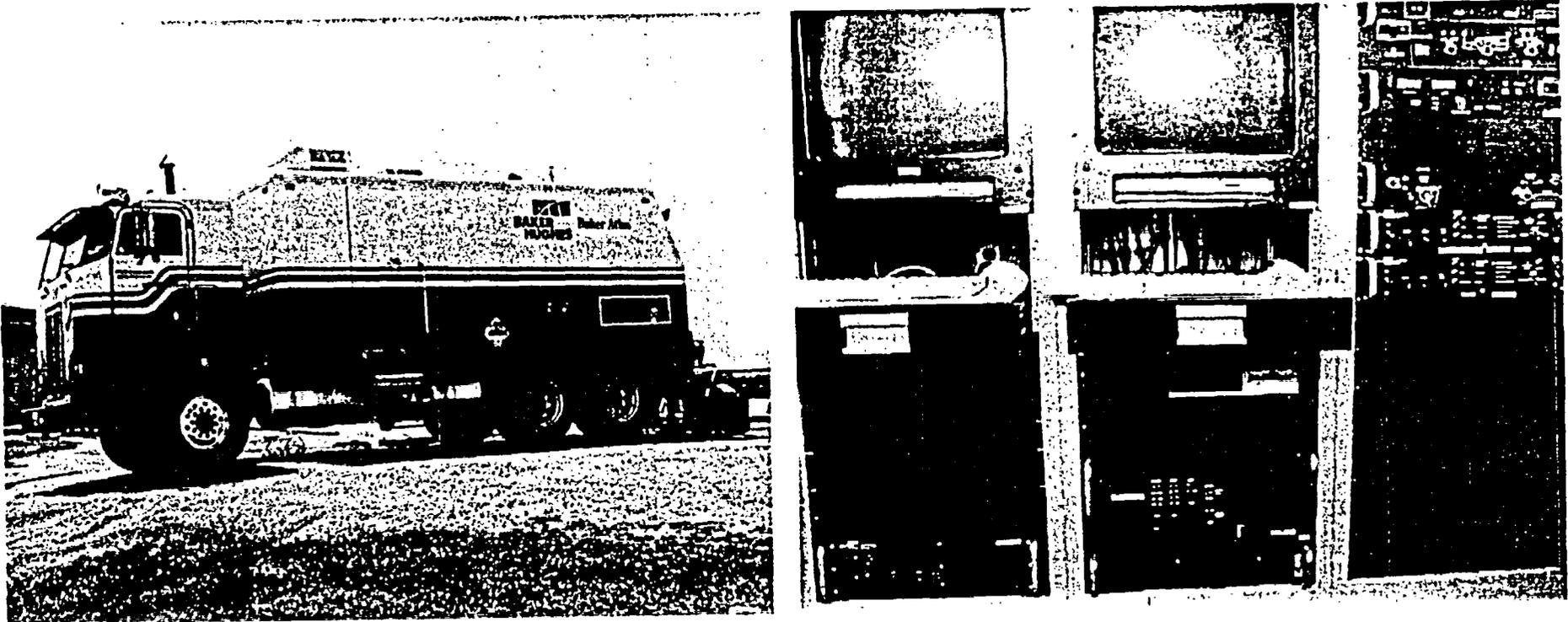
**ATTACHMENT A**

# What we do



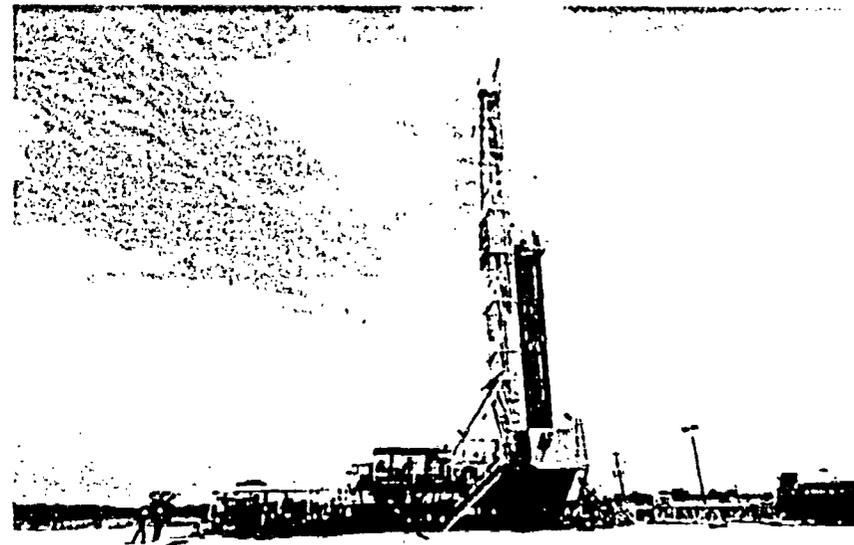
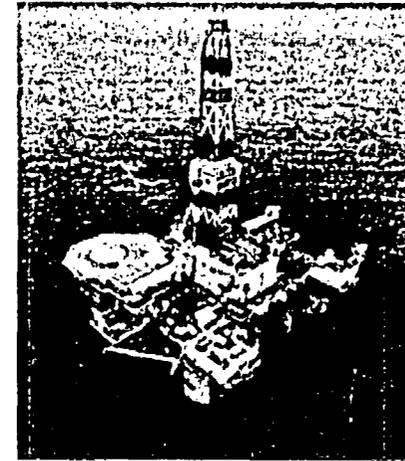
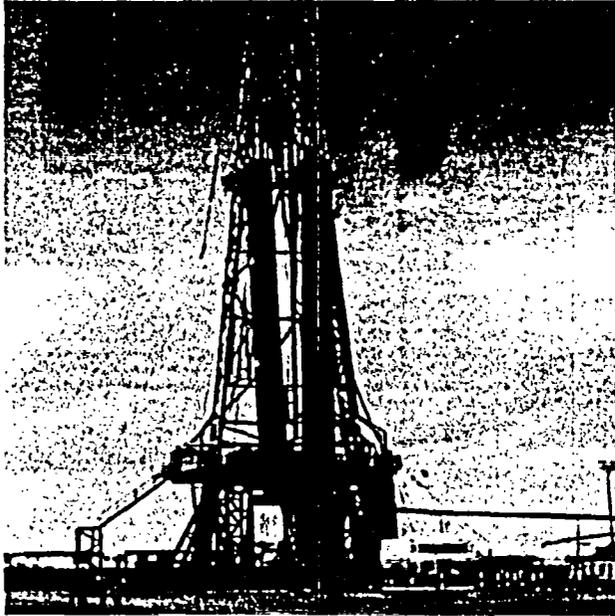
- 1) Unit or Truck
- 2) Wireline
- 3) Logging instrument

# Wireline Logging Truck



- The downhole instruments, in conjunction with the surface acquisition and processing system, are capable of evaluating the various parameters of the rocks surrounding a wellbore at its various depths.

# Typical work locations



# Porosity measurements

- A compensated neutron tool is used to measure porosity.
- Porosity is measured through the emission of neutrons from an 18-curie Americium/Beryllium, double encapsulated, sealed source.
- Good porosity indicates an ability to hold large amounts of hydrocarbons in the rock.
- The use of instruments containing neutron sources for porosity measurements has been standard practice in the oilfield service industry since the 1970s.

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## Attachment B

ENTIRE DOCUMENT

~~CONFIDENTIAL~~

*Proprietary*

PUBLIC VERSION

~~CONFIDENTIAL~~

*Proprietary*

2

PUBLIC VERSION

**Attachment C**

**ENTIRE DOCUMENT**

~~**CONFIDENTIAL**~~

*Proprietary*

PUBLIC VERSION

~~CONFIDENTIAL~~

*Proprietary*

**PUBLIC VERSION**

**Attachment D**

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NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 1 OF 4 PAGES  
Amendment No. 75

## MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with letter dated February 10, 2005
1. Baker Hughes Oilfield Operations, Inc. dba Baker Atlas	3. License number 42-02964-01 is amended in its entirety to read as follows:
2. 2001 Rankin Road P.O. Box 670968 Houston, Texas 77267-0968	4. Expiration date December 31, 2014
	5. Docket No. 030-06402 Reference No.

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Cobalt-60	A. [REDACTED]	A. [REDACTED]
B. Iodine-131	B. [REDACTED]	B. [REDACTED]
C. Iridium-192	C. Any	C. [REDACTED]
D. Scandium-46	D. Any	D. [REDACTED]
E. Americium-241	E. [REDACTED]	E. [REDACTED]
F. Americium 241	F. [REDACTED]	F. [REDACTED]
G. Americium-241	G. [REDACTED]	G. [REDACTED]

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number  
42-02964-01

Docket or Reference Number  
030-06402

Amendment No. 75

6. Byproduct, source, and/or special nuclear material

7. Chemical and/or physical form

8. Maximum amount that licensee may possess at any one time under this license

H. Cesium-137

H.

H.

I. Cesium-137

I.

I.

J. Cesium-137

J.

J.

K. Americium-241

K.

K.

L. Thorium-228

L.

L.

M. Hydrogen-3

M.

M.

N. Hydrogen-3

N.

N.

O. Hydrogen-3

O.

O.

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NRC FORM 374A

U.S. NUCLEAR REGULATORY COMMISSION

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## MATERIALS LICENSE SUPPLEMENTARY SHEET

License Number  
42-02964-01Docket or Reference Number  
030-06402

Amendment No. 75

### 9. Authorized use

- A. Used for collar markers or perforation markers.
- B. through D. Oil, gas and non-potable water well radioactive tracer studies and instrument calibration.
- E. through I. Oil, gas and non-potable water well logging.
- J. through L. Instrument calibration
- M. through O. For use in downhole neutron generators for oil, gas and non-potable water well logging.

### CONDITIONS

- 10. A. Licensed material may be used and stored at branch offices in the non-Agreement States listed in the licensee's application dated February 20, 2003. The licensee shall notify USNRC, Region IV, Nuclear Materials Licensing Branch, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, of the opening of additional branch offices (in non-Agreement States) within 7 days thereafter.
- B. Licensed material may also be used at temporary job sites of the licensee anywhere in the United States where the Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States.  
  
If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.
- 11. The licensee shall not vacate or release to unrestricted use a field office or storage location whose address is identified in Condition 10, without prior U.S. Nuclear Regulatory Commission approval.
- 12. Licensed material shall be used by, or under the supervision and in the physical presence of:
  - A. Individuals who have been trained as specified in application dated February 20, 2003.
  - B. The Radiation Safety Officer for this license is David Huber.
- 13. Notwithstanding the periodic leak test required by 10 CFR 39.35, such requirement does not apply to sources, except sources containing plutonium, that are stored and not being used. The sources excepted from this test shall be tested for leakage before use or transfer to another person. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- 14. Each source holder or logging tool containing radioactive material shall bear a legible and visible marking as specified in 10 CFR 39.31(a). The label must be on the smallest component that contains the licensed material which is transported as a separate piece of equipment.
- 15. The opening, repair, or modification of any Energy Compensation Source must be performed by persons specifically approved to do so by the Commission or an Agreement State.

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number  
42-02964-01

Docket or Reference Number  
030-06402

Amendment No. 75

16. Sealed sources authorized for a use other than well logging shall be leak tested and inventoried in accordance with 10 CFR 39.35 and 10 CFR 39.37.
17. The licensee is allowed to perform maintenance in accordance with the procedures outlined in the letter dated October 28, 2004, on neutron sources described in the letter dated October 28, 2004.
18. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of sealed byproduct material to quantities less than  $10^{12}$  times the applicable limits in Appendix B of 10 CFR Part 30 as specified in 10 CFR 30.35(d).
19. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
  - A. Application dated February 20, 2003
  - B. Letter dated October 28, 2004

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date April 20, 2005

By

*Anthony D. Gaines*

Anthony D. Gaines, Senior Health Physicist  
Nuclear Materials Licensing Branch  
Region IV  
Arlington, Texas 76011

**Attachment E**

**ENTIRE DOCUMENT**

~~**CONFIDENTIAL**~~

*Proprietary*

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Proprietary

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**Attachment F**

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## AFFIDAVIT OF JAN E. FARLEY

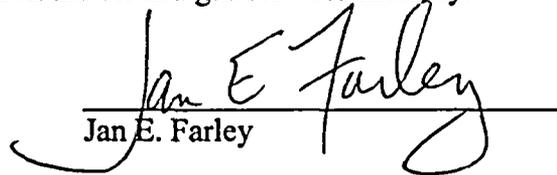
I, Jan E. Farley, hereby state as follows:

1. I am Vice President – Law, Baker Atlas Division of Baker Hughes Incorporated (“Baker Hughes”), and have assisted in the preparation of the Nuclear Regulatory Commission (“NRC”) license request that is enclosed with this affidavit. This affidavit is submitted in accordance with 10 C.F.R. § 2.390.
2. We request, pursuant to 10 C.F.R. § 2.390, withholding from public disclosure of certain confidential commercial information relating to Baker Hughes’ operations. The confidential information includes information separated by brackets in the license request Form-7 and cover letter, and the entirety of attachments B, C, and E. The reasons for withholding the information are identified in the paragraphs that follow.
3. Question 21 to the enclosed Form-7, and sections III and IV of the enclosed cover letter, contain information specifying the number of Am-241/Be sources that Baker Hughes has in its possession currently, and intends to acquire for purposes of export/import activity in the future. Those figures are confidential, proprietary information, the disclosure of which would cause harm to Baker Hughes by making public specific information as to the scope of Baker Hughes’ current and future EWL activities. Accordingly, we request that question 21 of Form 7 and the bracketed information in sections III and IV of the enclosed cover letter be withheld from public disclosure.
4. Section III and Attachments C and E of the enclosed cover letter contain specific information as to the countries where Baker Hughes sources will be exported. That information also is confidential business information, the disclosure of which would cause harm to Baker Hughes’ business operations, as it would disclose to the public the precise locations of Baker Hughes’ sources and Baker Hughes’ strategies for foreign growth in its EWL services business. Accordingly, we request that the bracketed portions of Section III, and Attachment C and E in their entirety, be withheld from public disclosure.
5. Attachment B to the enclosed cover letter contains specific information pertaining to Baker Hughes’ internal custody and control sources for Am-241/Be sources. The information set forth in Attachment B is proprietary business operations information, and we therefore request that Attachment B be withheld from disclosure in its entirety.
6. Section IV of the enclosed letter contains information, identified in brackets, regarding Baker Hughes’ strategy for distributing sources among foreign locations. That information also is confidential business information, the disclosure of which would cause harm to Baker Hughes by disclosing to the

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public information regarding its internal strategies for responding to commercial opportunities.

7. All of the information in this license request for which withholding is requested has been held in confidence by Baker Hughes, and is of the type customarily held in confidence by companies in the oil and gas services industry.

  
\_\_\_\_\_  
Jan E. Farley

State of Texas       §  
County of Harris   §

Subscribed and sworn to before me  
this 28th day of October, 2005.

  
\_\_\_\_\_  
Linda J. Noske  
Notary Public

My Commission Expires: April 14, 2007

