



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

November 4, 2003

Core Laboratories, Inc.  
dba ProTechnics Division of Core Laboratories  
ATTN: Will C. Williams  
Radiation Safety Officer  
9830 Rosprim  
Houston, TX 77040

SUBJECT: LICENSE AMENDMENT

Please find enclosed Amendment No. 30 to License No. 42-26928-01. You should review this license carefully and be sure that you understand all conditions. If you have any questions, you may contact me at (817) 860-8221 or via e-mail [lcc1@nrc.gov](mailto:lcc1@nrc.gov).

This amendment authorizes an additional disposal alternative pursuant to 10 CFR 20.2002 to inject well returns (sandouts) containing radioactive tracer material with physical half-lives of the material is 120 days or less (sodium-24, scandium-46, chromium-51, rubidium-86, antimony-124, iodide-131, xenon-133, iridium-192, or gold-198) into Class II disposal wells that have been approved to accept non-hazardous oil and gas waste by State agencies.

Attached for your perusal is a copy of the Federal Register (Volume 68, Number 208) dated October 28, 2003, publishing the results of NRC's environmental assessment (EA). The Federal Register indicates that NRC staff completed its assessment of your proposed disposal in Class II wells of sandouts containing radioactive tracer materials. The staff made a finding of no significant impact (FONSI) to the environment.

NRC expects licensees to conduct their programs with meticulous attention to detail and a high standard of compliance. Because of the serious consequences to employees and the public that can result from failure to comply with NRC requirements, you must conduct your radiation safety program according to the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate by NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC in writing of any change in mailing address.

3. By 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
  - a. When you decide to terminate all activities involving materials authorized under the license; or
  - b. If you decide not to complete the facility, acquire equipment, or possess and use authorized material.
4. Request and obtain a license amendment before you:
  - a. Change Radiation Safety Officers;
  - b. Order byproduct material more than the amount or form authorized on the license;
  - c. Add or change the areas or address(es) of use identified in the license application or on the license; or
  - d. Change the name or ownership of your organization.
5. Submit a complete renewal application or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

In addition, please note that NRC Form 313 requires the applicant, by signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

NRC will periodically inspect your radiation safety program. Failure to conduct your program according to NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG 1600.

Core Laboratories, Inc.

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In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Thank you for your cooperation.

Sincerely,

***/RA/***

Louis C. Carson II, Health Physicist  
Nuclear Materials Licensing Branch

Docket: 030-30429  
License: 42-26928-01  
Control: 468137

Enclosures: As stated

**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.

<p style="text-align: center;">Licensee</p> <p>1. Core Laboratories, Inc. dba ProTechnics Division of Core Laboratories</p> <p>2. 9830 Rosprim Houston, Texas 77040</p>	<p>In accordance with letter dated August 23, 2000</p> <p>3. License number 42-26928-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date January 31, 2006</p> <hr/> <p>5. Docket No. 030-30429 Reference No.</p>
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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. Iodine-131	A. Any	A. 500 millicuries
B. Iridium-192	B. Any	B. 5000 millicuries
C. Scandium-46	C. Any	C. 3000 millicuries
D. Gold-198	D. Any	D. 5000 millicuries
E. Zirconium-95	E. Any	E. 500 millicuries
F. Xenon-133	F. Any	F. 500 millicuries
G. Chromium-51	G. Any	G. 1500 millicuries
H. Antimony-124	H. Any	H. 2000 millicuries
I. Rubidium-86	I. Any	I. 3000 millicuries
J. Bromine-82	J. Any	J. 3000 millicuries
K. Hydrogen-3	K. Any	K. 999 millicuries
L. Sodium-24	L. Any	L. 2000 millicuries
M. Americium-241	M. Sealed Source (Gammatron Model AN-HP, Gulf Nuclear Model VL-1)	M. No single source to exceed 250 microcuries, total possession 100 millicuries
N. Americium-241	N. Sealed Source (Isotope Products Model HEG-241 Series, Capsule A-3015)	N. No single source to exceed 50 millicuries
O. Barium-133	O. Sealed Source (Isotope Products Model HEG-133 Series, Capsule A-3015)	O. No single source to exceed 2 millicuries, total possession 200 millicuries

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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
P. Cesium-137	P. Sealed Source (Isotope Products Model HEG-137 Series, Capsule A-3015)	P. No single source to exceed 200 millicuries, total possession 20 curies
Q. Cesium-137	Q. Sealed Source (Isotope Products Model HEG-137 Series, Capsule A-3015)	Q. No single source to exceed 600 millicuries
R. Cesium-137	R. Any	R. 50 microcuries
S. Cobalt-60	S. Any	S. 50 microcuries
T. Iridium-192	T. Any	T. 50 microcuries
U. Scandium-46	U. Any	U. 50 microcuries
V. Antimony-124	V. Any	V. 50 microcuries

9. Authorized use:

- A. through K. For use in tracer studies in oil and gas wells.
- A., J., and L. For use in above ground tracer studies.
- M. and N. For use as a calibration/stabilization source in Halliburton Model TSCAN logging tool for logging tracer material in oil and gas wells.
- O. and P. For use as a calibration/stabilization source in Cedar Bluff Group's Fluid Identification logging tool for logging tracer material in oil and gas wells.
- Q. For use in oil and gas well logging.
- R. through V. For use in pipe collar markers in oil and gas wells.

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**CONDITIONS**

## 10. Radioactive material shall be used only at the following:

- A. 1930 Elk Street, Rock Springs, Wyoming; Natrona County International Airport, 3857 Dame, Casper, Wyoming; Alaska Department of Natural Resources Deadhorse Tract 57, Spine Road, Prudhoe Bay, Alaska.
- B. License materials may be stored at Shell Offshore, Inc. Gas Well: OSG-C 11553, Well No. 2, Field: Garden Banks Block 602, Offshore Louisiana, in accordance with letter December 16, 1999, pending final abandonment.
- C. Temporary job sites anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating 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. Licensed material identified in Item 6.L. may be temporarily stored in accordance with letter dated August 10, 1998.
12.
  - A. Licensed material shall be used by, or under the supervision and in the physical presence of, individuals who have completed the Support Consultants and Associates, Inc., F. L. Clifford Associates, Sharp Radiation Services, W. H. Henkin Industries, Inc., Amersham/Gulf Nuclear, Inc., or ProTechnics Environmental Services, Inc., training courses and have been designated by the Radiation Safety Officer.
  - B. The Radiation Safety Officer for this license is Will C. Williams.
13. 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 NRC approval.
14. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
15. Pursuant to 10 CFR 39.91, the licensee is exempted from the requirements of 10 CFR 39.63(b) for use of remote handling tools. This exemption will remain in effect until formally withdrawn by the NRC.

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16. Notwithstanding the requirements of 10 CFR 39.47 and pursuant to 10 CFR 39.91, and in accordance with the statements, representations and procedures contained in letter dated July 14, 1997, and February 4, 1998, the licensee may use radioactive markers with activities of 50 microcuries or less of iridium-192, scandium-46, antimony-124, cobalt-60, and cesium-137 as pipe collar markers in oil and gas wells.
17. The licensee is authorized to hold radioactive material with a physical half-life of less than 120 days for decay-in-storage before disposal in ordinary trash provided:
- A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
  - B. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
  - C. A record of each disposal permitted under this License Condition shall be retained for 3 years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.
18. Notwithstanding the requirements of 10 CFR 20.2007, pursuant to 10 CFR 20.2002, and in accordance with the statements, representations, and procedures contained in correspondence dated August 23, 2000, January 23, 2002, and October 30, 2003, the licensee may release well-logging sandouts and well returns, containing residual radioactive materials, into Class II Disposals Wells provided:
- A. The total radioactive concentration of all isotopes is 1,000 picocuries/gram or less, and the physical half-life of the radioactive material is 120 days or less.
  - B. The residual radioactive tracer material (sodium-24, scandium-46, chromium-51, rubidium-86, antimony-124, iodide-131, xenon-133, iridium-192, or gold-198) being disposed of will be in the form of the patented "Zero-Wash" product in sandouts or well returns.
  - C. The well has been Permitted by the State, Territory, or Federal jurisdiction to accept non-hazardous oil and gas waste regardless of whether the job site is in an area where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating licensed material, including areas of exclusive Federal jurisdiction within Agreement States.
  - D. The licensee maintains an agreement with the owner or operator to control access to the Class II Disposal Well until the radioactivity has decayed to unrestricted release levels.



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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 U.S. 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 November 15, 1991
  - B. Facsimile dated November 25, 1991
  - C. Letter dated February 14, 1992
  - D. Letter dated March 1, 1993
  - E. Letter dated April 12, 1993
  - F. Letter dated May 4, 1993
  - G. Letter dated October 26, 1993
  - H. Letter dated April 20, 1994
  - I. Letter dated May 6, 1994
  - J. Letter dated May 19, 1994
  - K. Letter dated May 26, 1994
  - L. Letter dated October 20, 1994
  - M. Letter dated January 4, 1995
  - N. Letter dated January 11, 1995
  - O. Letter dated June 13, 1995, authorization of new facility only.
  - P. Letter dated June 13, 1995, authorization to use the Model TSCAN
  - Q. Letter dated September 12, 1995
  - R. Letter dated September 27, 1995
  - S. Letter dated October 26, 1995
  - T. Letter dated January 17, 1996
  - U. Letter dated February 13, 1996
  - V. Letter dated February 24, 1997
  - W. Letter dated July 14, 1997
  - X. Letter dated November 14, 1997
  - Y. Letter dated January 20, 1998
  - Z. Letter dated January 27, 1998
  - AA. Letter dated February 4, 1998
  - BB. Letter received May 20, 1998
  - CC. Letter dated July 15, 1998
  - DD. Letter dated August 10, 1998
  - EE. Letter dated August 31, 1999
  - FF. Letter dated December 16, 1999
  - GG. E-mail dated February 11, 2000
  - HH. Letter dated March 3, 2000
  - II. Letter dated June 5, 2000
  - JJ. Letter dated June 15, 2000
  - KK. Facsimile dated July 6, 2000
  - LL. E-mail dated February 14, 2000



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19. (Continued)

- MM. Letter dated May 22, 2000
- NN. Letter dated August 22, 2001
- OO. Letter dated November 7, 2001
- PP. Letter dated August 23, 2000



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

**/RA/**Date November 4, 2003

By \_\_\_\_\_

Jack E. Whitten, Chief  
Division of Nuclear Materials Safety  
Region IV  
Arlington, Texas 76011