



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

October 2, 2006

Richard B. Jenkins, Colonel
Commander
Department of the Army, Corps of Engineers
Engineer Research and Development Center
ATTN: CEERD-SO-V
P. O. Box 631
Vicksburg, Mississippi 39180-0631

SUBJECT: LICENSE AMENDMENT

Please find enclosed Amendment No. 27 to NRC License No. 23-01544-10. **This amendment incorporates a revised Statement of Intent letter dated July 24, 2006 which increases the amount of money that will be requested if there is a need to perform decommissioning activities. Please note that we have removed the "Alternate Radiation Safety Officers" from this license. Only the Radiation Safety Officer (RSO), John A. Lindigrin, need to be listed on the license. The RSO is responsible for the overall management of the radiation safety program; identifying radiation safety problems, initiating, recommending or providing corrective actions; verifying implementation of corrective actions; ensuring compliance with the Commission's rules and regulations and conditions of the license. An RSO should actively participate in the day-to-day management of the radiation safety program. Although the performance of certain radiation safety tasks may be delegated by the RSO to other individuals (such as an Alternate Radiation Safety Officer), the responsibility for the overall effectiveness of the radiation safety program and for compliance with NRC rules and regulations and conditions of the license reside with the RSO.** An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14)(v). You should review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or if you have any questions, contact me at 817-860-8189.

NRC's Regulatory Issue Summary (RIS) 2005-31, provides criteria to identify security-related sensitive information and guidance for handling and marking such documents. This ensures that potentially sensitive information is not made publicly available through NRC's electronic document system (ADAMS). The RIS may be located on the NRC Web site at: <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2005/>. Pursuant to NRC's RIS 2005-31, this letter and the enclosed materials license will be made publicly available.

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(d) 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 whether at the entire site or any separate building or outdoor area;
 - b. If you decide not to acquire or possess and use authorized material; or
 - c. When no principal activities under the license have been conducted for a period of 24 months.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;
 - b. Order byproduct material in excess of the amount, radionuclide 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. Since the NRC also accepts a letter requesting amendment of an NRC license, the signatory for such a request should also 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 NRC Enforcement Policy.

The NRC no longer publishes the NRC Rules and Regulations loose leaf supplements. However, an electronic version of the NRC's regulations is available on the NRC Web site at www.nrc.gov. To view these regulations, highlight "Electronic Reading Room" and choose "Regulations" on the drop down menu. An electronic version of the NUREG-1556 Series publications is also available on the NRC Web site. To view these guidance documents, highlight "Electronic Reading Room"; choose "All Document Types" on the drop down menu; scroll down to "NUREG-Series Publications"; and select "Publications Prepared by the NRC Staff". Then, choose "NUREG-1556" from the table and select the appropriate volume(s) for your license type.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Thank you for your cooperation.

Sincerely,

/RA/

Roberto J. Torres, Senior Health Physicist
Nuclear Materials Licensing Branch

Docket: 030-05062
License: 23-01544-10
Control: 471060

Enclosures: As stated

cc:
John A. Lindigrin, Radiation Safety Officer

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. Department of the Army Corps of Engineers</p> <p>2. P.O. Box 631 Vicksburg, Mississippi 39180-0631</p>	<p>In accordance with letter dated July 27, 2006</p> <p>3. License number 23-01544-10 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date January 31, 2013</p> <hr/> <p>5. Docket No. 030-05062 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. Hydrogen 3	A. Any	A. 1.85 gigabecquerels (GBq) (50 millicurie (mCi))
B. Carbon 14	B. Any	B. 3.7 GBq (100 mCi)
C. Phosphorus 32	C. Any	C. 740 megabecquerels (MBq) (20 mCi)
D. Phosphorus 33	D. Any	D. 925 MBq (25 mCi)
E. Sulfur 35	E. Any	E. 925 MBq (25 mCi)
F. Chromium 51	F. Any	F. 37 MBq (1 mCi)
G. Iron 59	G. Any	G. 37 MBq (1 mCi)
H. Nickel 63	H. Any	H. 1.48 GBq (40 mCi)
I. Zinc 65	I. Any	I. 37 MBq (1 mCi)
J. Cadmium 109	J. Any	J. 37 MBq (1 mCi)
K. Tin 113	K. Any	K. 37 MBq (1 mCi)

9. Authorized use:

A. Through K. Research and development as defined in 10 CFR 30.4, in laboratory tracer studies.

CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities located at 3909 Halls Ferry Road, Vicksburg, Mississippi.

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11. The Radiation Safety Officer (RSO) for this license is John A. Lindigrin.
12. Licensed material shall only be used by, or under the supervision and in the physical presence of, the following individuals:
- A. Elly P.H. Best, Ph.D.
 - B. James M. Brannon, Ph.D.
 - C. Herbert L. Frederickson, Ph.D.
 - D. Laura S. Inouye, Ph.D.
 - E. Judith C. Pennington, Ph.D.
 - F. Jeffrey A. Steevens, Ph.D.
 - G. Barbara A. Tardy
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results are received.
- C. Sealed sources need not be leak tested if they are in storage and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- E. Tests for leakage and/or contamination shall be performed by the licensee or other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. In addition, the licensee is authorized to collect leak test samples for analysis by persons specifically licensed by the Commission or an Agreement State to perform such services.
- F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.

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14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed or detached from source holders by the licensee, except as specifically authorized.
15. Any cleaning, maintenance, or repair, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
16. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
17. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.
18. The licensee shall not use licensed material in or on human beings except as provided otherwise by specific condition of this license.
19. The licensee is authorized to hold byproduct material with a physical half-life of less than 120 days for decay-in-storage before disposal without regard to its radioactivity if it:
 - A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding.
 - B. Remove or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the license; and
 - C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container and the name of the individual who performed the disposal.
20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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21. 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 June 28, 2002 (ML021960323)
- B. Letter dated January 8, 2003 (ML030150322)
- C. Letter dated February 21, 2003 (ML030630143)
- D. Letter dated June 28, 2004 (ML042080386)
- E. Letter dated July 24, 2006 (ML062720064)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Date October 2, 2006

By

Roberto J. Torres, Senior Health Physicist
Nuclear Materials Licensing Branch
Region IV
Arlington, Texas 76011