



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 28, 2007

Docket No. 03034376
Control No. 140563

License No. 31-28713-01

David I. Hirsh, Ph.D.
Executive Vice President of Research
Columbia University
Environmental & Occupational Health
398 Engineering Terrace
500 W. 120th Street
New York, NY 10027

SUBJECT: COLUMBIA UNIVERSITY, LICENSE RENEWAL, CONTROL NO. 140563

Dear Dr. Hirsh:

This refers to your request for renewal of your NRC license. Enclosed with this letter is the renewed license. Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

The NRC expects licensees to conduct their programs with meticulous attention to detail and high standards 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 program according to NRC regulations, the conditions of your NRC license, and the representations made in your application. Please note that the last condition on your license indicates that "This license condition applies only to those procedures that are required to be submitted in accordance with the regulations." Therefore, any procedures submitted that were not required by regulation to be submitted, e.g., calibration of dose calibrators, will not be considered a part of your license and were not reviewed during the licensing process. These procedures will be reviewed during inspections, as necessary.

Please note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify the NRC in writing when:
 - a) an authorized user, authorized nuclear pharmacist, authorized medical physicist or Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change;
 - b) the mailing address changes;

- c) the name on the license changes; or
 - d) permitting an individual to function as a temporary Radiation Safety Officer in accordance with 10 CFR 35.24(c).
- 3. In accordance with 10 CFR 30.36(d), notify the 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 acquire or possess and use authorized material.
- 4. Request and obtain a license amendment before you:
 - a) permanently change Radiation Safety Officers;
 - b) receive byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c) add or change the areas of use, except as allowed by 10 CFR 35.13(e) and with the appropriate notification described in 10 CFR 35.14(b)(4);
 - d) change the name or ownership of your organization;
 - e) change the address(es) of use identified on the license;
 - f) receive, prepare, or use byproduct material for a type of use that is not authorized on the license;
 - g) permit anyone to work as an authorized user, authorized nuclear pharmacist, or authorized medical physicist, except as allowed by 10 CFR 35.13(b) and with the appropriate notification described in 10 CFR 35.14(a); or
 - h) revise procedures required by 10 CFR 35.610, 35.642, 35.643, or 35.645, as applicable, where such revision reduces radiation safety.
- 5. Submit a complete renewal application or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations.

You will be periodically inspected by the NRC. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and the representations made in your license application and supplemental correspondence with NRC will 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.

D. Hirsh
Columbia University

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An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Regulations, Guidance, and Communications**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

Original signed by Thomas K. Thompson

Thomas K. Thompson
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 3

cc:
George N. Hamawy, Radiation Safety Officer

D. Hirsh
Columbia University

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SUNSI Review Complete: TThompson

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NAME	TThompson /TKT/							
DATE	8/28/07							

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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>Licensee</p> <p>1. Columbia University Environmental & Occupational Health</p> <p>2. 398 Engineering Terrace 500 W. 120th Street New York, New York 10027</p>	<p>In accordance with the letter dated May 18, 2007</p> <p>3. License number 31-28713-01 is amended in its entirety to read as follows:</p> <p>4. Expiration date August 31, 2017</p> <p>5. Docket No. 030-34376 Reference No.</p>
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| <p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Hydrogen 3</p> <p>B. Carbon 14</p> <p>C. Phosphorus 33</p> <p>D. Thorium 229</p> <p>E. Protactinium 233</p> <p>F. Cesium 137</p> | <p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Any</p> <p>E. Any</p> <p>F. Sealed Source (Isotope Products Lab Model 225)</p> | <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 15 millicuries</p> <p>B. 50 millicuries</p> <p>C. 2 millicuries</p> <p>D. 0.001 microcuries</p> <p>E. 1 microcurie</p> <p>F. 10 millicuries</p> |
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9. Authorized use:

- A. through E. Research and development as defined in 10 CFR 30.4.
- F. For use in a Geotec core logger for density measurements of sediment core samples.

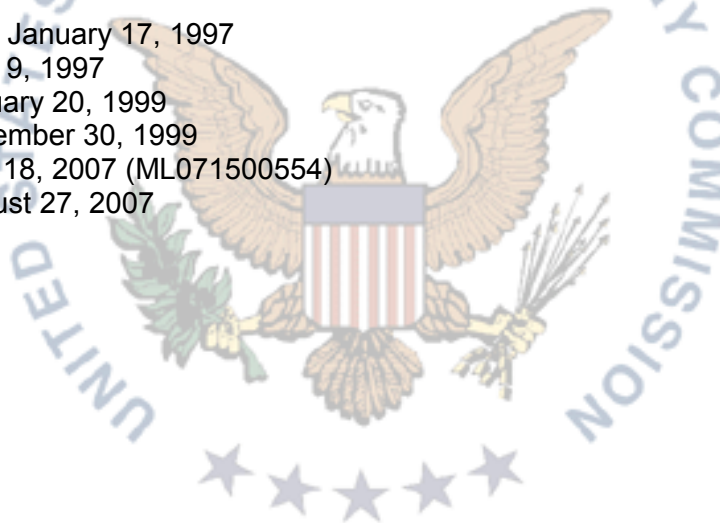
CONDITIONS

10. Licensed material may be used in research vessels at sea in national and international waters and coastal waters located anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
11. Licensed material shall be used by, or under the supervision of, individuals designated in writing by the Radiation Safety Committee.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
31-28713-01Docket or Reference Number
030-34376

Amendment No. 03

12. The Radiation Safety Officer for this license is George Hamawy.
13. Licensed material shall not be used in or on human beings.
14. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
15. 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 January 17, 1997
 - B. Letter dated April 9, 1997
 - C. Letter dated January 20, 1999
 - D. Letter dated November 30, 1999
 - E. Letter dated May 18, 2007 (ML071500554)
 - F. Letter dated August 27, 2007



For the U.S. Nuclear Regulatory Commission

Date August 28, 2007

By

Original signed by Thomas K. Thompson

Thomas K. Thompson
Commercial and R&D Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406