



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BOULEVARD, SUITE 400
ARLINGTON, TEXAS 76011-4005

April 8, 2008

Augustana College
ATTN: Michael K. Wanous, Ph.D.
Radiation Safety Officer
2001 South Summit Avenue
Sioux Falls, South Dakota 57197

SUBJECT: LICENSE RENEWAL

Please find enclosed Amendment No. 20 to License No. 40-06921-03 **renewing this license in its entirety**. 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 this license carefully and be sure that you understand all conditions. Please contact me at 817-860-8189 if you have any questions.

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; or
 - 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.

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 Enforcement Policy is available on the following internet address:
<http://www.nrc.gov/reading-rm/doc-collections/enforcement/>.

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 Collections" on the drop down menu; choose "NUREGS (NRC Reports)"; and select "Publications Prepared by the NRC Staff". Then, choose "NUREG-1556" from the table and select the appropriate volume 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 Safety, Branch B

Docket: 030-01063
License: 40-06921-03
Control: 471628

Enclosure: As stated

U.S. NUCLEAR REGULATORY COMMISSION

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. Augustana College</p> <p>2. 2001 South Summit Avenue Sioux Falls, South Dakota 57197</p>	<p>In accordance with application dated November 27, 2007</p> <p>3. License number 40-06921-03 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date April 30, 2018</p> <hr/> <p>5. Docket No. 030-01063 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Phosphorus-32</p> <p>B. Sulfur-35</p> <p>C. Iodine-125</p> <p>D. Americium-241</p> <p>E. Cobalt-60</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. Sealed neutron sources (American Nuclear Products)</p> <p>E. Sealed sources (American Nuclear Products, New England Nuclear)</p> <p>F. Sealed sources</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 5 millicuries total</p> <p>B. 5 millicuries total</p> <p>C. 50 microcuries total</p> <p>D. 1.1 microcuries total</p> <p>E. 100 microcuries total</p> <p>F. 200 microcuries total</p>
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<p>9. Authorized use</p> <p>A., through C.</p> <p>D.</p> <p>E., and F.</p>	<p>Research and development as defined by 10 CFR 30.4. Biological research, no animal studies.</p> <p>Classroom and laboratory demonstrations, and calibration of instruments.</p> <p>Calibration and demonstration of instruments.</p>
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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
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030-01063

Amendment No. 20

CONDITIONS

10. Licensed material shall be stored or used only at Augustana College, 2001 South Summit Avenue, (33rd Street and Summit Avenue), Sioux Falls, South Dakota.
11. The Radiation Safety Officer (RSO) for this license is Michael K. Wanous, Ph.D.
12.
 - A. Licensed material identified in items 6.A., through 6.C., shall be used by, or under the supervision of Michael K. Wanous, Ph.D., Maureen Diggins, Ph.D., or Paul Eglund, Ph.D.
 - B. Licensed material identified in items 6.D., through 6.F., shall be used by, or under the supervision of Michael K. Wanous, Ph.D., Eric Wells, Ph.D., and Drew Alton, Ph.D.
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 received.
 - C. Sealed sources need not be leak tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material.
 - D. Sealed sources need not be 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 shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
 - E. 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, 612 East Lamar Boulevard, Suite 400, Arlington, Texas 76011-4005, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
 - F. Tests for leakage and/or contamination, limited to leak test sample collection, shall be performed by the licensee, or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

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- G. Record of leak test results shall be kept in unit of microcuries and shall be maintained for 5 years.
14. The licensee shall not acquire licensed material in a sealed source or device that contains a sealed source unless the source or device has been registered with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.
15. Sealed sources containing licensed material shall not be opened.
16. Licensed material shall not be used in or on human beings.
17. 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 (if such information is available), and the date of the inventory.
18. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:
- 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; and
 - B. Removes 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 licensee; 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.

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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 27, 2007 (ML080380125)
- B. Electronic mail dated March 25, 2008 (ML080980526)
- C. Letter dated March 29, 2008 (ML080980526)
- D. Telephone conversation record dated April 7, 2008 (ML080980526)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date April 8, 2008

By /RA/
Roberto J. Torres, Senior Health Physicist
Nuclear Materials Safety, Branch B
Region IV
Arlington, Texas 76011