



Department of State Health Services

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Texas Radiation Control Act and Texas Department of State Health Services (Agency) regulations on radiation, 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 radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the Agency now or hereafter in effect and to any conditions specified below.

LICENSEE

1. Name **THE UNIVERSITY OF TEXAS AT AUSTIN
ENVIRONMENTAL HEALTH AND SAFETY
ATTN W SCOTT PENNINGTON CHP**

2. Address **PO BOX 7729
AUSTIN TX 78713-7729**

This license is issued in response to a letter

Dated: **July 6, 2009**

Signed by: **W. Scott Pennington, CHP**

3. License Number L00485	Amendment Number 80
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PREVIOUS AMENDMENTS ARE VOID

4. Expiration Date

June 30, 2009

RADIOACTIVE MATERIAL AUTHORIZED

5. Radioisotope	6. Form of Material	7. Maximum Activity	8. Authorized Use
A. Any radioactive material with an Atomic Number less than 84	A. Any except sealed sources	A. 300 millicuries of any single radionuclide Total: 3 curies	A. Research and education.
B. Any radioactive material with an Atomic Number less than 84	B. Sealed sources	B. Any single source not to exceed 15 millicuries Total not to exceed 1 curie	B. Research and education.
C. Cs-137	C. Sealed source (3M Models 4F6H)	C. 700 millicuries	C. Research and education (J. L. Shepherd and Associates 28 Series instrument calibrator).
D. Any radioactive material with an Atomic Number 84 or greater, except special nuclear material	D. Any except sealed sources	D. 25 millicuries of any single radionuclide Total: 250 millicuries	D. Research and education.



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5. Radioisotope (Continued)	6. Form of Material (Continued)	7. Maximum Activity (Continued)	8. Authorized Use (Continued)
E. Any radioactive material with an Atomic Number greater than 84, except special nuclear material	E. Sealed sources	E. Any single source not to exceed 50 millicuries Total: 1 curie	E. Research and education.
F. H-3	F. Any	F. 1000 curies	F. Research and education.
G. U-235	G. Any solid or liquid	G. 2 grams (4.322 picocuries/gram)	G. Research and education.
H. Pu-238/239 PuBe-238/239	H. Sealed sources	H. 176 grams (11 curies)	H. Research and education.
I. Am-241, AmBe-241	I. Sealed sources	I. 3 curies	I. Research and education.
J. Cs-137	J. Sealed sources (Nordion C-440)	J. Two sources not to exceed 2100 curies Total: 4200 curies	J. For irradiation of samples in a Nordion gammacell 40 self shielded irradiator.
K. Cs-137	K. Sealed source (TN Model 570-57157C)	K. 110 millicuries	K. Research and education (Robertshaw Controls Company Model 770-A Series gauging device).
L. Cs-137	L. Sealed source (AEA Technology Model 77302)	L. 90 millicuries	L. Research and education (AEA Technology-QSA Inc., Model 773 calibrator)
M. H-3	M. Sealed source (Metal tritide)	M. No single source to exceed 14 curies Total: 42 curies	M. Research and education (Thermo MF Physics Corporation Model A-3000 Series neutron generator).

9. A. Radioactive material shall only be stored and used at:

<u>Site Number</u>	<u>Location</u>
000	Austin - Austin Campus of the University of Texas
002	Port Aransas - Institute of Marine Science
003	Austin - J.J. Pickle Research Campus, except reactor operations that are authorized by the U.S. Nuclear Regulatory Commission (NRC).



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9. (Continued)

B. Radioactive material in the form of carbon-14 or tritium labeled reagents, with activities no more than 6 millicuries, may also be used in accordance with protocols by the letter dated February 25, 1997, at temporary sites not under exclusive Federal jurisdiction throughout Texas.

10. Each site shall maintain documents and records pertinent to the operations at that site. Copies of all documents and records required by this license shall be maintained for Agency review at Site 000, except those required by 25 TAC §289.201(d) that are directly related to radioactive materials for human-use and unsealed reference sources for instrument calibration, 25 TAC §289.202(nn), and 25 TAC §289.202(tt).

11. The licensee shall comply with the provisions (as amended) of Title 25, Texas Administrative Code (TAC) §289.201, §289.202, §289.203, §289.204, §289.205, §289.251, §289.252, §289.253, §289.254, §289.255, §289.257, §289.258 and §289.259.

12. The University of Texas (UT) at Austin Radiation Safety Committee (RSC), Gerald Hoffmann, Ph.D., Chair:

A. The UT RSC authorized membership is:

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|--------------------------------------|--|
| Neal E. Armstrong, Ph.D., P.E., BCEE | Vice Provost for Faculty Affairs |
| Kevin N. Dalby, Ph.D. | Department of Pharmacy |
| Gerald Hoffmann, Ph.D. | Department of Physics |
| G. Robert Harkins, Ed.D. | Associate Vice President, Campus Safety and Security |
| Steven R. Biegalski, P.E. | Director, Nuclear Engineering Teaching Laboratory |
| W. Scott Pennington, CHP | Radiation Safety Officer |
| Jon Robertus, Ph.D. | Department of Chemistry |
| Juan M. Sanchez, Ph.D. | Vice President, Research |
| Bob G. Sanders, Ph.D. | Department of Biological Sciences |

B. Radioactive material may be used only under the direct supervision of, or by individuals designated by the UT RSC.

C. Qualifications of new RSC members shall be submitted to the Agency for review and approval prior their participation as a full-voting member in RSC deliberations. Executive management may make interim appointments for replacement of departing members, pending Agency approval, when the interim appointee has equivalent credentials as did the departing member and represents the same department as did the departing member.

13. The individual designated to perform the functions of Radiation Safety Officer (RSO) for activities covered by this license is W. Scott Pennington, CHP.



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14. A current copy of the licensee's radiation safety manual shall be readily available to each person who uses radioactive material authorized by this license.
15. Proposed substantive changes in or additions to the licensee's radiation safety manual shall be submitted to the Agency for approval before being incorporated into that document.
16. In accordance with 25 TAC §289.201(g), each sealed source that is not designed to emit alpha particles may be tested at intervals specified by the Registry of Radioactive Sealed Sources and Devices (SSD) safety evaluation.
17. The licensee shall maintain a current copy of the safety evaluation, from "The Registry of Radioactive Sealed Sources and Devices" for each sealed source received under authority of this license, in excess of 100 microcuries of beta/gamma-emitting material or 10 microcuries of alpha-emitting material.
18. Animals administered radioactive materials or products from such animals shall not be used for human consumption.
19. The licensee shall not open sealed sources containing radioactive material.
20. Sealed sources of radioactive material, Ni-63 foil, and/or plated alpha-emitting sources shall be tested for leakage and/or contamination in accordance with the provisions of 25 TAC §289.201(g). Leak tests may also be performed by Ryan D. Green, R. DeWayne Holcomb, W. Scott Pennington, Tracy N. Tipping, or Larry S. Welch.
21. Radiation survey instruments shall be calibrated at intervals not to exceed 12 months by persons licensed by the Agency, another Agreement State, or by the United States Nuclear Regulatory Commission (NRC). Survey instruments used under this license may also be calibrated by Ryan D. Green, R. DeWayne Holcomb, D. Sean O'Kelly, W. Scott Pennington, or Tracy N. Tipping.
22. The licensee shall conduct a physical inventory every six months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for inspection by the Agency for three years from the date of the inventory and shall include the quantities and the kinds of radioactive material, location of sealed sources, the name of the individual taking the inventory, and the date of the inventory.
23. The licensee may dispose of certain radioactive materials whose half-lives do not exceed 300 days in accordance with the provisions of 25 TAC §289.202(fff)(4).
24. The licensee shall comply with the requirements described in U. S. Nuclear Regulatory Commission's



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(NRC) Order EA-07-305 (the Order), with attachments. The requirements listed in the Order shall be implemented as part of the trustworthiness and reliability program of the Increased Controls requirements.

- A. By May 28, 2008, the licensee shall provide under oath or affirmation, a certification that the Trustworthiness and Reliability Official (TRO) is deemed trustworthy and reliable by the licensee as required in paragraph B.2. of the Order.
- B. All fingerprints obtained by the licensee pursuant to this requirement must be submitted to the NRC for transmission to the U.S. Federal Bureau of Investigation (FBI). Additionally, the licensee's submission of fingerprints shall also be accompanied by a certification, under oath and affirmation, of the trustworthiness and reliability of the TRO as required by paragraph B.2. of the Order.
- C. The licensee shall complete implementation of the fingerprinting requirements by August 27, 2008. The licensee shall notify DSHS - Radioactive Material Licensing Group, Manager when they have achieved full compliance with the requirements described in the Order. The notification shall be made within thirty (30) days after full compliance has been achieved.
- D. The licensee shall notify Manager, Radioactive Material Licensing Group, DSHS at (512) 834-6688, ext. 2207 within 24 hours if the results from a criminal history records check indicate that an individual is identified on the FBI's Terrorist Screening Data Base.

25. Except as specifically provided otherwise by this license, the licensee shall possess and use the radioactive material authorized by this license in accordance with statements, representations, and procedures contained in the following:

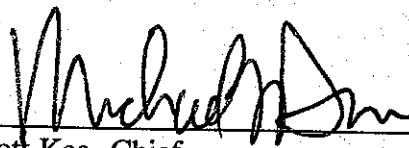
application dated April 23, 1993,
letters dated April 9, 2002, May 8, 2002, May 29, 2002, July 25, 2002, March 24, 2005,
March 28, 2005 (w/ revised procedures manual), April 18, 2007, and May 27, 2008.

Title 25 TAC §289 shall prevail over statements contained in the above documents unless such statements are more restrictive than the regulations.

KEM/km

FOR THE DEPARTMENT OF STATE HEALTH SERVICES

Date July 13, 2009,


 J. Scott Kee, Chief
 Medical and Academic Licensing Program