

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.

Licensee		In accordance with letter dated February 14, 1997,	
1. Department of Veterans Affairs Puget Sound Health Care System		3. License Number 46-00990-01 is amended in its entirety to read as follows:	
2. 1660 South Columbian Way Seattle, Washington 98108		4. Expiration Date March 31, 2000	
		5. Docket or Reference No. 030-03367	
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. Any byproduct material with Atomic Numbers between 1-83, inclusive, except as specified below	A. Any, other than sealed sources	A. 100 millicuries of each radionuclide with a total possession limit of 2.5 curies.	
B. Hydrogen-3	B. Any	B. 500 millicuries	
C. Carbon-14	C. Any	C. 50 millicuries	
D. Molybdenum-99	D. Any	D. 200 curies	
E. Technetium-99m	E. Any	E. As needed	
F. Iodine-125	F. Any	F. 300 millicuries	
G. Iodine-131	G. Any	G. As needed not to exceed 300 millicuries in any one container	
H. Sulfur-35	H. Any	H. 250 millicuries	
I. Nickel-63	I. Foils	I. 50 millicuries	

100015

9. Authorized Use:

- A. through I. Medical diagnosis, therapy, and research in humans. Research and development as defined in Section 30.4 of 10 CFR Part 30, and student instruction. Instrument calibration.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

46-00990-01

Docket or Reference Number

030-03367

Amendment No. 61

CONDITIONS

10. A. Licensed material shall be used at the licensee's facilities located at Department of Veterans Affairs Medical Center, 1660 South Columbian Way, Seattle, Washington.
- B. Licensed material for non-human use may also be used at the licensee's facilities located at American Lake, Tacoma, Washington.
11. The Radiation Safety Officer for this license is Carl E. Bergsagel.
12. A. The use of licensed material in or on humans shall be by a physician, dentist, or podiatrist as defined in 10 CFR 35.2.
- B. Physicians, dentists, or podiatrists designated to use licensed material in or on humans shall meet the training criteria established in 10 CFR Part 35, Subpart J and shall be designated by the licensee's Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for 3 years after the individual's last use of licensed material.
- C. Licensed material for other than human use shall be used by or under the supervision of individuals designated by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for 3 years after the individual's last use of licensed material.
13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the limits specified in 10 CFR 30.72 which require consideration of the need for an emergency plan for responding to a release of licensed material.
14. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.

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(continued)

D. Sealed sources and detector cells need not be leak tested if:

- (i) they contain only hydrogen-3; or
- (ii) they contain only a radioactive gas; or
- (iii) the half-life of the isotope is 30 days or less; or
- (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
- (v) they are not designed to emit alpha particles, 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.

E. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission, and the source or detector cell 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 or detector cell involved, the test result, and corrective action taken.

F. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

- 15. Pursuant to 10 CFR Part 40, "Domestic Licensing of Source Material," the licensee is authorized to possess, use, transfer, and import up to 999 kilograms of depleted uranium contained as shielding material.
- 16. The licensee shall conduct a physical inventory every 3 months to account for all sources and/or devices received and possessed pursuant to 10 CFR 35.59, 10 CFR 35.400 and 10 CFR 35.500 and every 6 months for all other sources and/or devices. Records of inventories shall be maintained for 5 years from the date of each inventory, and shall include the information required in 10 CFR 35.59(g).

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17. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
18. The licensee is authorized to hold radioactive material with a physical half-life of less than 90 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 survey 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. Generator columns shall be segregated so that they may be monitored separately to ensure decay to background levels prior to disposal.
 - D. 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.
19. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.
20. 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."
21. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of unsealed licensed materials to quantities less 10^4 times the applicable limits in Appendix B of 10 CFR Part 30, as specified in 10 CFR Part 30.35(d).

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22. 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, except for minor changes in the medical use radiation safety procedures as provided in 10 CFR 35.31. 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. Letter dated April 28, 1994 (from VA American Lake)
- B. Letter dated October 27, 1994 (from VA American Lake)
- C. Application dated December 15, 1994
- D. Letter dated March 15, 1995
- E. Letter dated May 2, 1995
- F. Letter dated February 14, 1997

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date MAR 25 1997

By James L. Montgomery
Materials Branch
Region IV, WCFO
Walnut Creek, California 94596

*(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

Program Code: 02110
Status Code: 0
Fee Category: EX 7B 2B
Exp. Date: 20050331
Fee Comments:

on Fin Assur Req'd: Y

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: V. A. DEPARTMENT OF
Received Date: 970303
Docket No: 3003367
Control No.: 572463
License No.: 46-00990-01
Action Type: Amendment

2. FEE ATTACHED

Amount: _____
Check No.: _____

3. COMMENTS

Signed _____
Date _____

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/_/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal _____
License _____

3. OTHER _____

Signed _____
Date _____



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV

Walnut Creek Field Office
1450 Maria Lane
Walnut Creek, California 94596-5368

MAR 25 1997

Department of Veterans Affairs
Puget Sound Health Care System
ATTN: Timothy B. Williams
Director
1660 South Columbian Way
Seattle, Washington, 98108-1595

SUBJECT: LICENSE AMENDMENT

Please find enclosed Amendment 61 to License No. 46-C0990-01. You should review this license carefully and be sure that you understand all conditions. Additionally, please note that we have changed the format of your license to meet guidelines from NRC Headquarters to maintain consistency with Broad licenses. If you have any questions, please contact me at 510-975-0249.

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 which can result from failure to comply with NRC requirements, you must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with 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. Possess radioactive material only in the quantity and form indicated in your license.
3. Use radioactive material only for the purpose(s) indicated in your license.
4. Notify NRC in writing of any change in mailing address (no fee required if the location of radioactive material remains the same).
5. Request and obtain written NRC consent before transferring your license or any right thereunder, either voluntarily or involuntarily, directly or indirectly, through transfer of control of your license to any person or entity. A transfer of control of your license includes not only a total change of ownership, but also a change in the controlling interest in your company whether it is a corporation, partnership, or other entity. In addition, appropriate license amendments must be requested and obtained for any other planned changes in your facility or program that are contrary to your license or contrary to representations made in your license application, as well as supplemental correspondence thereto, which are incorporated into your license. A license fee may be charged for the amendments if you are not in a fee-exempt category.

6. Maintain in a single document decommissioning records that have been certified for completeness and accuracy listing all the following items applicable to the license:
 - Onsite areas designated or formerly designated as restricted areas as defined in 10 CFR 20.3(a)(14) or 20.1003.
 - Onsite areas, other than restricted areas, where radioactive materials in quantities greater than amounts listed in Appendix C to 10 CFR 20.1001-20.2401 have been used, possessed, or stored.
 - Onsite areas, other than restricted areas, where spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site have occurred that required reporting pursuant to 10 CFR 30.50(b)(1) or (b)(4), including areas where subsequent cleanup procedures have removed the contamination.
 - Specific locations and radionuclide contents of previous and current burial areas within the site, excluding radioactive material with half-lives of 10 days or less, depleted uranium used only for shielding or as penetrators in unused munitions, or sealed sources authorized for use at temporary job sites.
 - Location and description of all contaminated equipment involved in licensed operations that is to remain onsite after license termination.
7. Submit a complete renewal application with proper fee, 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.
8. Request termination of your license if you plan to permanently discontinue activities involving radioactive material.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and 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

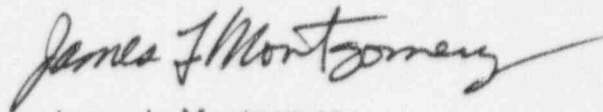
Department of Veterans Affairs
Puget Sound Health Care System

-3-

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), 60 FR 34381, June 30, 1995.

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script, reading "James L. Montgomery". The signature is written in dark ink and is positioned above the printed name and title.

James L. Montgomery
Senior Health Physicist
Materials Branch

Docket: 030-03367
License: 46-00990-01
Control: 572463

Enclosures: As stated

Department of Veterans Affairs
Puget Sound Health Care System

-4-

bcc:

F. Herbig, Director, V.A.

E. Liedholdt, Western Region Program Manager, V.A.

Docket File

WCFO Inspection File

LFDCB, T-9 E10

State of Washington (License Only)

DOCUMENT NAME: G:\572463

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:MB	<i>3/27</i>	RIV:MB							
KMPrendergast	<i>10/1</i>	JMontgomery							
03/ /97		03/25/97							

OFFICIAL RECORD COPY



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV

Walnut Creek Field Office
1450 Maria Lane
Walnut Creek, California 94596-5368

MAR - 6 1997

Department of Veterans Affairs
Puget Sound Health Care System
ATTN: Timothy B. Williams
Director
1660 South Columbian Way
Seattle, Washington 98108-1595

SUBJECT: ACKNOWLEDGMENT OF REQUEST FOR LICENSING ACTION

REFERENCE: Letter dated February 14, 1997

We have completed the administrative review and initial processing of your application.

Please note that the technical review may identify additional omissions in the submitted information or technical issues that require additional information.

Amendment actions are normally processed within 90 days, unless the technical review identifies:

- Major technical deficiencies
- Policy issues that require input and coordination with other NRC Regional offices, Agreement State offices, or NRC's Office of Nuclear Materials and Safeguards

Any correspondence about this application should reference the Control number listed below.

Sincerely,

James L. Montgomery
Senior Health Physicist
Materials Branch

Docket No. 030-03367
License No. 46-00990-01
Control No. 572463

bcc:

Docket File

To receive a copy of this document, indicate in the box "C" - Copy without attachment/enclosure "E" - Copy with attachment/enclosure "N" - No Copy

OFFICE	RIV:WCFO:NMLB	N		N
NAME	J. Garcia		J. Montgomery	
DATE	3/6/97		3/6/97	



DEPARTMENT OF VETERANS AFFAIRS
Medical Center
St Louis MO 63125

Amendment
RECEIVED
NRC
RIV WCFO

97 MAR -3 PM 12:56

In Reply Refer To:

February 25, 1997

U.S. Nuclear Regulatory Commission
Region IV
Walnut Creek Field Office
Attn: James Montgomery
1450 Maria Lane
Walnut Creek, CA 94596-5396

SUBJECT: NRC License No. 46-00990-01

The enclosed correspondence from the Seattle, Washington VA Medical Center has been received and is forwarded to your office for processing. If there are questions, please contact the facility.

Please provide a copy of any correspondence relative to licensing actions for this Medical Center to:

Department of Veterans Affairs
Health Physics Programs (115HP)
915 North Grand Blvd.
St. Louis, MO 63106

Sincerely,

Cindy Dukowsky

for Francis K. Herbig
Health Physics Programs

572463



DEPARTMENT OF VETERANS AFFAIRS
Puget Sound Health Care System
1660 South Columbian Way
Seattle, WA 98108-1595

FEB 14 1997

Amendment
RECEIVED
NRC
RIV WCFO
97 MAR -3 PM 12:56

American Lake Division
Tacoma, WA 98493-5000

In Reply Refer To:

Seattle Division
Seattle, WA 98108-1597

James Montgomery
Senior Licensing Specialist
1450 Maria Lane, Suite 400
USNRC Region IV Field Office
Walnut Creek, CA 94596

663/11R

RE: Amendment to License Number: 46-00990-01
Docket Number: 030-03367

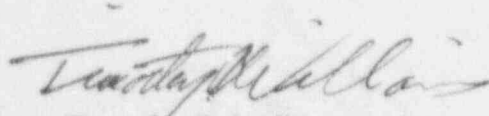
Dear Mr. Montgomery:

Please amend our radioactive materials license to designate Mr. Carl E. Bergsagel as Radiation Safety Officer for licensed activities as required by 10 CFR 35.13 (c). This appointment has received Radiation Safety Committee approval. Mr. Bergsagel's curriculum vitae and Previous NRC license naming him as RSO (license number 04-01496-01), are attached for your review. Mr. Michael C. Simmons will continue to act as Radiation Safety Officer until this amendment is approved and recieved.

Also please be advised of our facility name change which was necessary to enable recognition of the integration of the Seattle and American Lake Medical Centers. The new name is VA Puget Sound Health Care System.

Please call Mr. Bergsagel at (206) 762-1010, Extension 1789 if further information is required pursuant to this request.

Sincerely,


Timothy B. Williams
Director

enclosures (2)

572463

CURRICULUM VITAE

NAME: Carl E. Bergsagel

ADDRESS: VA Puget Sound Health Care System
Radiation Safety Office (11R)
1660 S. Columbian Way
Seattle, WA 98108

TELEPHONE: (206) 762-1010 extension 1789

DATE AND PLACE OF BIRTH: August 16, 1950, Great Lakes, Illinois

EDUCATION:

University of North Carolina at Chapel Hill, North Carolina, Master of Science in Public Health (MSPH) with major in Radiological Hygiene, 1985.

East Tennessee State University, Johnson City, Tennessee, Bachelor of Science in Environmental Health (BSEH) (Cum Laude), 1975.

PROFESSIONAL EXPERIENCE:

February 1997- Present	VA Puget Sound Health Care System, Seattle, Washington. Health Physicist.
January 1993- February 1997	Fred Hutchinson Cancer Research Center, Seattle Washington. Health Physicist, Environmental Health and Safety Department. Radiation Safety Officer for Washington State Broad Scope License No. WN-L042-1
April 1992- January 1993	Lawrence Berkeley Laboratory, Berkeley, California. Health Physicist with Radiation Assessment Group. Managed the laboratory radionuclide worker radiation safety training program.
September 1988- March 1992	Letterman Army Medical Center and Letterman Army Institute of Research, Presidio of San Francisco, California. Radiation Safety Officer for NRC Type A Broad Scope Medical License No. 04-01496-01.
June 1985- August 1988	US Army 10th Medical Laboratory, Landstuhl, Germany. Health Physics Consultant in the Radiological Hygiene Branch.
January 1982- May 1985	William Beaumont Army Medical Center, El Paso, Texas. Radiation Safety Officer for NRC Type A Broad Scope Medical License No. 42-05255-07 and NRC Cobalt-60 Radiation Teletherapy License No. 42-05255-08.
November 1975- December 1979	US Army Medical Department Activity, Fort Stewart, Georgia. Chief, Environmental Health Section, Preventive Medicine Service.

Curriculum Vitae - Carl E. Bergsagel (cont.)

OTHER TRAINING/SHORT COURSES:

- | | |
|--------------|--|
| July 1991 | <i>Specification, Acceptance Testing and Quality Control of Diagnostic X-ray Imaging Equipment</i> , American Association of Physicists in Medicine Summer School, University of California at Santa Cruz, Santa Cruz, California (1 week). |
| October 1985 | <i>Medical Effects of Nuclear Weapons Course</i> , Armed Forces Radiobiology Research Institute, and <i>Medical Management of Chemical Casualties Course</i> , U.S. Army Medical Research Institute of Chemical Defense, Mannheim, Germany (1 week). |
| April 1985 | <i>Radioactive Waste Packaging, Transportation and Disposal Course</i> , Chem-Nuclear Systems, Inc., Columbia, South Carolina (1 week). |
| April 1984 | <i>Laser-Microwave Hazards Workshop</i> , U.S. Army Environmental Hygiene Agency, Aberdeen Proving Ground, Maryland (1 week). |
| January 1984 | <i>Health Physics in Radiation Accidents Course</i> , REAC/TS, Oak Ridge Associated Universities, Oak Ridge, Tennessee (1 week). |
| May 1982 | <i>Medical X-ray Survey Techniques Course</i> , Academy of Health Sciences, U.S. Army, Fort Sam Houston, Texas (2 weeks). |
| April 1982 | <i>Radiation Protection Officer Workshop</i> , U.S. Army Environmental Hygiene Agency, Aberdeen Proving Ground, Maryland (1 week). |

PROFESSIONAL AFFILIATION:

American Association of Physicists in Medicine - Associate Member

Health Physics Society - Plenary Member
(Charter Member, Medical Health Physics Section)

Amendment No. 41

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, 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.

Licensee		In accordance with letter dated May 23, 1990			
1.	Department of the Army Letterman Army Medical Center	3. License number 04-01496-01 is amended in its entirety to read as follows:			
2.	ATTN: HSHH-WHP Presidio of San Francisco, California 94129	4. Expiration date	April 30, 1994		
		5. Docket or Reference No.	030-01220		
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.	Any byproduct material with atomic numbers 3 - 83 and a half-life of less than 120 days	A.	Any	A.	500 millicuries of each radionuclide with atomic numbers 3 to 83. Total possession limit for Subitem A(1) not to exceed 10 curies
B.	Iodine 131	B.	Any	B.	1 curie
C.	Technetium 99m	C.	Any	C.	5 curies
D.	Molybdenum 99	D.	Any	D.	5 curies
E.	Carbon 14	E.	Any	E.	1 curie
F.	Hydrogen 3	F.	Any	F.	1 curie
G.	Cadmium 109	G.	Any	G.	10 millicuries
H.	Calcium 45	H.	Any	H.	15 millicuries
I.	Manganese 54	I.	Any	I.	10 millicuries
J.	Cesium 137	J.	Any	J.	20 millicuries
K.	Any byproduct material identified in 10 CFR 35.400	K.	Any brachytherapy source identified in 10 CFR 35.400	K.	As needed
L.	Any byproduct material identified in 10 CFR 35.500	L.	Sealed sources for diagnostic devices	L.	As needed

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

04-01496-01

Docket or Reference number

030-01220

Amendment No. 41

- | | | |
|---|---|--|
| 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 |
| M. Any byproduct material with Atomic Nos. 3-83 | M. Sealed sources | M. 500 millicuries of each radionuclide |
| N. Americium 241 | N. Sealed sources | N. 2 millicuries |
| O. Cesium 137 | O. Sealed source (Amersham Corp. Model X.9 source capsule in a J.L. Shepherd Model 28 series instrument calibrator) | O. 1 curie |
| P. Uranium (Depleted in U-235) | P. Plated metal | P. 136.4 kilograms |

9. Authorized use

- A. through O. Medical diagnosis and therapy as described in 10 CFR 35.100 through 35.500. Research in humans as approved by the Food and Drug Administration or by an RDRC approved by the FDA. Research in animals. Instrument calibration. Research and development as defined in 10 CFR 30.4(q). In vitro testing. Training.
- P. For use as shielding material in an accelerator.

CONDITIONS

10. Locations of use: Letterman Army Medical Center and Letterman Army Institute of Research, Presidio of San Francisco, California; Buildings 569 and 1007, Presidio of San Francisco, California.
11. Radiation Safety Officer: MAJ. Carl E. Bergsagel
12. A. The use of licensed material in or on humans shall be by a physician as defined in 10 CFR 35.2.
- B. Physicians designated to use licensed material in or on humans shall meet the training criteria established in 10 CFR 35 Subpart J and shall be designated by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users.
- C. Licensed material for other than human use shall be used by, or under the supervision of, individuals designated by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number

04-01496-01

Docket or Reference number

030-01220

Amendment No. 41

CONDITIONS

(continued)

13. A. (1) Each sealed source acquired from another person and containing licensed material, other than hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for contamination and/or leakage before use. In the absence of a certificate from a transferor indicating that a test has been made within six months before the transfer, a sealed source received from another person shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting materials or 10 microcuries or less of alpha emitting material.
- (3) Except for alpha sources, the periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage before any use or transfer to another person unless they have been leak tested within six months before the date of use or transfer.
- B. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfer as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcurie or greater of contamination, the source shall not be used or transferred as a sealed source until it has been repaired, decontaminated and retested.
- C. Each sealed source containing licensed material, other than hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.
- D. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently or semipermanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- E. If the test required by Subsection A. or C. of this condition reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U. S. Nuclear Regulatory Commission, Region V, 1450 Maria Lane, Suite 210, Walnut Creek, California 94596, describing the equipment involved, the test results, and the corrective action taken.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

04-01496-01

Docket or Reference number

030-01220

Amendment No. 41

CONDITIONS

(continued)

14. Pursuant to Title 10, Chapter 1, Code of Federal Regulations, Part 40, "Domestic Licensing of Source Material", the licensee is authorized to possess, use, transfer, and import up to 999 kilograms of depleted uranium contained as shielding material in the molybdenum-99/technetium-99m generators authorized by this license.
15. Except for sources identified in 10 CFR 35.59(g) the licensee shall conduct a physical inventory every six (6) months to account for all sources and/or devices received and possessed under the license. Records of the inventories shall be maintained for two (2) years from the date of each inventory.
16.
 - A. Sealed sources containing licensed material shall not be opened.
 - B. Detector cells containing licensed material shall not be opened or the sources removed from the detector cell by the licensee.
17.
 - A. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.
 - B. Detector cells containing scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 325 degrees Centigrade.
18. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in 10 CFR 20.203(a)(1), the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
19. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
20. Individuals involved in operations which utilize, at any one time, more than 100 millicuries of hydrogen 3 in a non-contained form, other than metallic foil, shall have bioassays performed within one week following a single operation and at weekly intervals for continuing operations.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

04-01496-01

Docket or Reference number

030-01220

Amendment No. 41

CONDITIONS

(continued)

21. The licensee is authorized to hold radioactive material with a physical half-life of less than 100 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 ten (10) half-lives.
 - B. Prior to disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
 - C. Generator columns shall be segregated so that they may be monitored separately to ensure decay to background levels prior to disposal.
 - D. Radioactive wastes containing microcurie amounts of iodine 125 may be disposed to the ordinary trash after being held for decay for a minimum of five (5) half-lives. Prior to disposal, these wastes must be monitored with an appropriate survey meter. The survey conducted prior to disposal must confirm that the radioactivity of the wastes cannot be distinguished from background.
22. The licensee may use the Calicheck device for doing linearity tests of its dose calibrator provided it follows the procedures in the Calcorp, Inc. Manual dated March 2, 1982.
23. Notwithstanding the requirements of 10 CFR 35.49(a) and (b), the licensee may use for medical use any byproduct material or reagent kit for which the Food and Drug Administration has accepted a "Notice of Claimed Investigational Exemption for a New Drug (IND)."
24. 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 December 20, 1988
 - B. Letter dated April 21, 1989
 - C. Letter dated May 23, 1990

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUL 11 1990

By

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