

MATERIALS LICENSE

Amendment No. 49

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		
1. Department of the Army Madigan Army Medical Center Preventive Medicine Service (Radiation Protection Office) Tacoma, Washington 98431-5000		In accordance with letter dated December 21, 1992 3. License number 46-02645-03 is amended in its entirety to read as follows:
		4. Expiration date October 31, 1994
		5. Docket or Reference No. 030-03368
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 identified in 10 CFR 35.100	A. Any radiopharmaceutical identified in 10 CFR 35.100	A. As needed
B. Any byproduct material identified in 10 CFR 35.200	B. Any radiopharmaceutical identified in 10 CFR 35.200	B. As needed
C. Any byproduct material identified in 10 CFR 35.300	C. Any radiopharmaceutical identified in 10 CFR 35.300	C. 3.0 curies
D. Any byproduct material identified in 10 CFR 35.400 with a half-life less than or equal to 120 days	D. Any brachytherapy source identified in 10 CFR 35.400	D. As needed
E. Cesium 137	E. Brachytherapy sources identified in 10 CFR 35.400	E. 500 curies
F. Cobalt 60	F. Brachytherapy sources identified in 10 CFR 35.400	F. 500 curies

230040

9302250333 930125
PDR ADDCK 03003368
C PDR

114.50

MATERIALS LICENSE
SUPPLEMENTARY SHEETLicense number
46-02645-03Docket or Reference number
030-03368

Amendment No. 49

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
G. Strontium 90	G. Brachytherapy sources identified in 10 CFR 35.400	G. 10 curies
H. Any byproduct material identified in 10 CFR 35.500 with a half-life less than or equal to 120 days	H. Sealed sources for diagnostic devices	H. As needed
I. Americium 241	I. Sealed sources for diagnostic devices	I. 10 curies
J. Gadolinium 153	J. Sealed sources for diagnostic devices	J. 500 curies
K. Hydrogen 3	K. Any	K. 100 millicuries
L. Any byproduct material with Atomic Nos. 2 through 83, inclusive, with a half-life less than or equal to 120 days	L. Any	L. 25 millicuries of each
M. Calcium 45	M. Any	M. 1.0 millicurie
N. Carbon 14	N. Any	N. 10.0 millicuries
O. Chlorine 36	O. Any	O. 1.0 millicurie
P. Iodine 129	P. Any	P. 20 microcuries
Q. Iron 55	Q. Any	Q. 5.0 millicuries
R. Manganese 54	R. Any	R. 0.5 millicurie
S. Zinc 65	S. Any	S. 0.5 millicurie
T. Any byproduct material with Atomic Nos. 1 through 83, inclusive	T. Sealed sources	T. Not to exceed 700 millicuries total

MATERIALS LICENSE
SUPPLEMENTARY SHEETLicense number
46-02645-03Docket or Reference number
030-03368

Amendment No. 49

- | | | |
|---|----------------------------------|--|
| 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 |
| U. Nickel 63 | U. Foil | U. 100 millicuries |
| V. Depleted uranium | V. Shielding | V. 999 kilograms |
9. Authorized Use
- A. Medical use described in 10 CFR 35.100.
B. Medical use described in 10 CFR 35.200.
C. Medical use described in 10 CFR 35.300.
D. through G. Medical use described in 10 CFR 35.400.
H. through G. Medical use described in 10 CFR 35.500.
K., L., and M. through S. Research in laboratory animals.
A. through C., and K. through S. Compounding and manufacturing of radiopharmaceuticals for in vivo and in vitro use, provided that such radiopharmaceuticals for in vivo use shall be subject to the Food and Drug Administration's requirements for New Drug Applications (NDA's) and Investigational New Drugs (IND's), and research in humans as approved by a Radioactive Drug Research Committee (RDRC) approved by the FDA.
- T. Reference/calibration standards.
U. For use in gas chromatographs for sample analysis.
V. As shielding for linear accelerators, molybdenum-99/technetium 99 generators, or in shielding blocks to be used in selected radiation therapy procedures.

CONDITIONS

10. Location of use: Madigan Army Medical Center, Tacoma, Washington
11. A. Radiation Protection Officer: Captain Ricky J. Kammerer
B. In the absence of Captain Ricky J. Kammerer, the Acting Radiation Protection Officer is William P. Menzel.
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 Subpart J and shall be designated by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
46-02645-G3

Docket or Reference number
030-03368

Amendment No. 49

CONDITIONS

(continued)

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.

13. Sealed sources for a use other than medical use shall be tested in accordance with 10 CFR 35.59.
14. Except for sources identified in 10 CFR 35.59(g), the licensee shall conduct a physical inventory every three (3) months to account for all sealed 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.
15. 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.
16. 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) or approved a "New Drug Application" (NDA).
17. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
18. The licensee shall maintain records of information related to decommissioning at the Madigan Army Medical Center, Preventative Medicine Service (Radiation Protection Office), Tacoma, Washington per the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.
19. 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.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 46-02645-03

Docket or Reference number 030-03368

Amendment No. 49

CONDITIONS

(continued)

20. 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 July 10, 1989
- B. Letter dated October 23, 1989
- C. Letter dated May 11, 1990
- D. Letter dated May 22, 1991
- E. Letter dated October 1, 1991
- F. Letter dated January 8, 1992
- G. Letter received August 24, 1992
- H. Telefacsimile dated September 9, 1992
- I. Letter dated December 21, 1992
- J. Letter dated January 15, 1993

FOR THE NUCLEAR REGULATORY COMMISSION

JAN 25 1993

Date _____

By: _____

Beth A. Prange
Beth A. Prange
Sr. Health Physicist (Licensing)
Radioactive Materials Safety Branch
Region V

JAN 25 1993

Docket No. : 030-03368
License No.: 46-02645-03
Control No.: 571739

Department of the Army
Madigan Army Medical Center
Preventive Medicine Service
(Radiation Protection Office)
Tacoma, WA 98431-5000

Attention: Lieutenant Colonel Wesley S. Hohl
Executive Officer

Enclosed is the NRC license amendment which you requested.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify us so that we can provide appropriate corrections and answers.

Any future correspondence relating to your license should specifically reference your license and docket numbers to expedite your inquiry.

Sincerely,

Beth A. Prange
Sr. Health Physicist (Licensing)
Radioactive Materials Safety Branch

Enclosure: Attachment A
Amendment No. 49 to License No. 46-02645-03

Distribution

bcc w/original concurrence, copy of license and original correspondence:
License docket folder

bcc w/copy of license and correspondence:
Inspection folder

bcc w/copy of license:
Reading file

bcc w/correspondence and 2 copies of license:
Shirley Crutchfield, LFMB, MNBB 4503

License only:
State of WA

KPrendergast
/ /

JMontgomery
/ /

DSkov
/ /

BP
BPrange
1/25/93

REQUEST COPY	REQUEST COPY	REQUEST COPY	REQUEST COPY
YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

RADIATION PROTECTION OFFICE

January 15, 1993

U.S. Nuclear Regulatory Commission
Region V, Materials Radiation Protection Section
1450 Maria Lane, Suite 210
Walnut Creek, California 94569

Gentlemen:

Per conversation between Beth Prange and CPT Ricky J. Kammerer, on 14 January 1993 the additional information is provided:

1) The rooms identified as: Long lived radioactive waste storage short lived radioactive waste storage and the Radiation Protection Office counting laboratory will be controlled to limit access to authorized individuals.

2) Surveys for contamination background radiation exposure rates will be accomplished in accordance with 10 CFR 35.70.

3) The Radiation Protection Office Laboratory in building 4290, room 141 and the Waste decay building 59749 will be decommissioned in accordance with NRC guidelines.

Point of contact regarding this additional information amendment should be addressed to Commander, Madigan Army Medical Center, ATTN: HSHJ-PVR (Radiation Protection Officer), Tacoma, Washington 98431-5000, commercial phone (206) 967-6696, 6706 or 6574. FTS 397-6696, 6706 4050.



RICKY J. KAMMERER
Captain, U.S. Army
Chief, Radiation Protection Office

HQ, HSC, ATTN: HSCL-P (LTC Mueller)
OTSG, SGPS-PSP: (COL Myers)

TELEPHONE OR VERBAL CONVERSATION RECORD

MS-15

1/14/93

TIME

8 A.M.
P.M.

☐ INCOMING CALL

☒ OUTGOING CALL

☐ VISIT

PERSON CALLING

OFFICE/ADDRESS

PHONE NUMBER | EXTENSION

PERSON CALLED

OFFICE/ADDRESS

PHONE NUMBER | EXTENSION

Capt. Kammerer

Chino, Tacoma

(206) 967-6696

SUBJECT

Control No. 571739

SUMMARY

1) Describe the security for the new counting lab, the short-lived waste storage area, + the long-lived waste storage area.

Capt. Kammerer stated that all areas are lockable. Also, the floor of the building is under their control.

2) Describe radiation level + contamination wipes to be performed in these areas.

3) Describe the old areas to be decontaminated + removed from the license at a later date.

app. dtd. July 10, 1989 - Shed #22

Waste Decay Bldg. 59749

Bldg. 4290, Room 141

4) I am deleting unnecessary pages ref Mr. Menzel, as they contain personal information not relevant to the review.

5) I will call Col. Myers for approval.

- B. Prange

REFERRED TO:

ACTION REQUESTED

☐ ADVISE ME OF ACTION TAKEN.

INITIALS

DATE

INITIALS

DATE

ACTION TAKEN

Amendment

DEPARTMENT OF THE ARMY

MADIGAN ARMY MEDICAL CENTER
TACOMA, WASHINGTON 98431-5000REPLY TO
ATTENTION OF

Radiation Protection Office

21 DEC 1992

U.S. Nuclear Regulatory Commission
Region V, Materials Radiation Protection Section
1450 Maria Lane, Suite 210
Walnut Creek, California 94569

Gentlemen:

Madigan Army Medical Center requests NRC Region V amend NRC License No. 46-02645-03 (Docket No. 030-03368) to reflect the following:

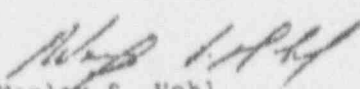
1) Replace the current radioactive waste storage area and the radiation protection office radioisotope counting laboratory with facilities described in the enclosed diagrams. These rooms are part of the facilities operated under NRC License No. 46-02645-05, which was terminated on 24 June 1992.

2) Add Sergeant First Class William P. Menzel, as an alternate radiation safety officer. Sergeant First Class Menzel meets the training and experience specified in 10 CFR 35.900 (b).

Questions regarding this amendment action should be addressed to Commander, Madigan Army Medical Center, ATTN: HSMV-PVR (Radiation Protection Officer), Tacoma, Washington 98431-5000, commercial phone (206) 967-6574 or 4050, FTS 397-6574 or 4050.

Sincerely,

Enclosure


Wesley S. Hohl
Lieutenant Colonel, Medical Service Corp
Executive Officer

FREE EXEMPT

571739



DEPARTMENT OF THE ARMY

MADIGAN ARMY MEDICAL CENTER
TACOMA, WASHINGTON 98431-5000REPLY TO
ATTENTION OF

NSXP-PM-RP (385-11m)

21 DEC 1992

MEMORANDUM TPRU

Commander, U.S. Army Health Services Command, ATTN: NSCL-P, Fort
Sam Houston, Texas 78234-6000Office of the Surgeon General, Headquarters, Department of the
Army, ATTN: DASG-PSP-E, 5109 Leesburg Pike, Falls Church, Virginia
22041-3258FOR U.S. Nuclear Regulatory Commission, Region V, Materials
Radiation Protection Section, 1450 Maria Lane, Suite 210
Walnut Creek, California 94569SUBJECT: Request for Amendment of Nuclear Regulatory Commission
Byproduct Materials License Number 46-02645-03 (Docket No. 030-
03368)1. Enclosed is a copy of the Nuclear Regulatory Commission
amendment request transmitted to NRC Region V requesting the
following:a. Relocation of the decay in storage area and radiation
protection office radioisotope counting laboratory.b. Add SFC William P. Menzel, as an alternate radiation
safety officer.2. Point of contact regarding this amendment action should be
addressed to Commander, Madigan Army Medical Center, ATTN: HSHJ-PVR
(Radiation Protection Officer), Tacoma, Washington 98431-5000,
commercial phone (206) 967-6574 or 4050, FTS 397-6574 or 4050.

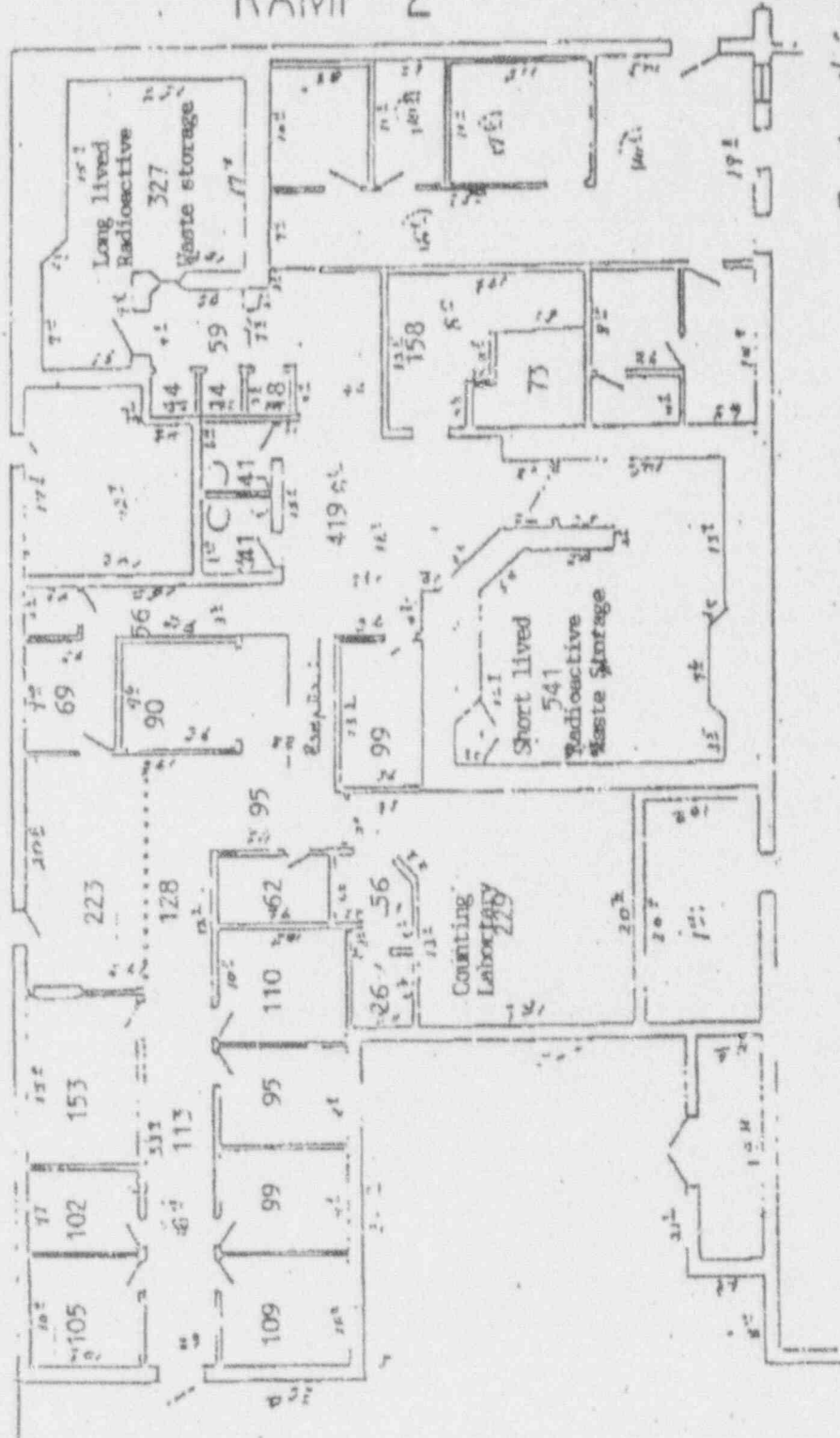
FOR THE COMMANDER:

Encl
68
WESLEY S. HOHL
LTC, MS
Executive Officer

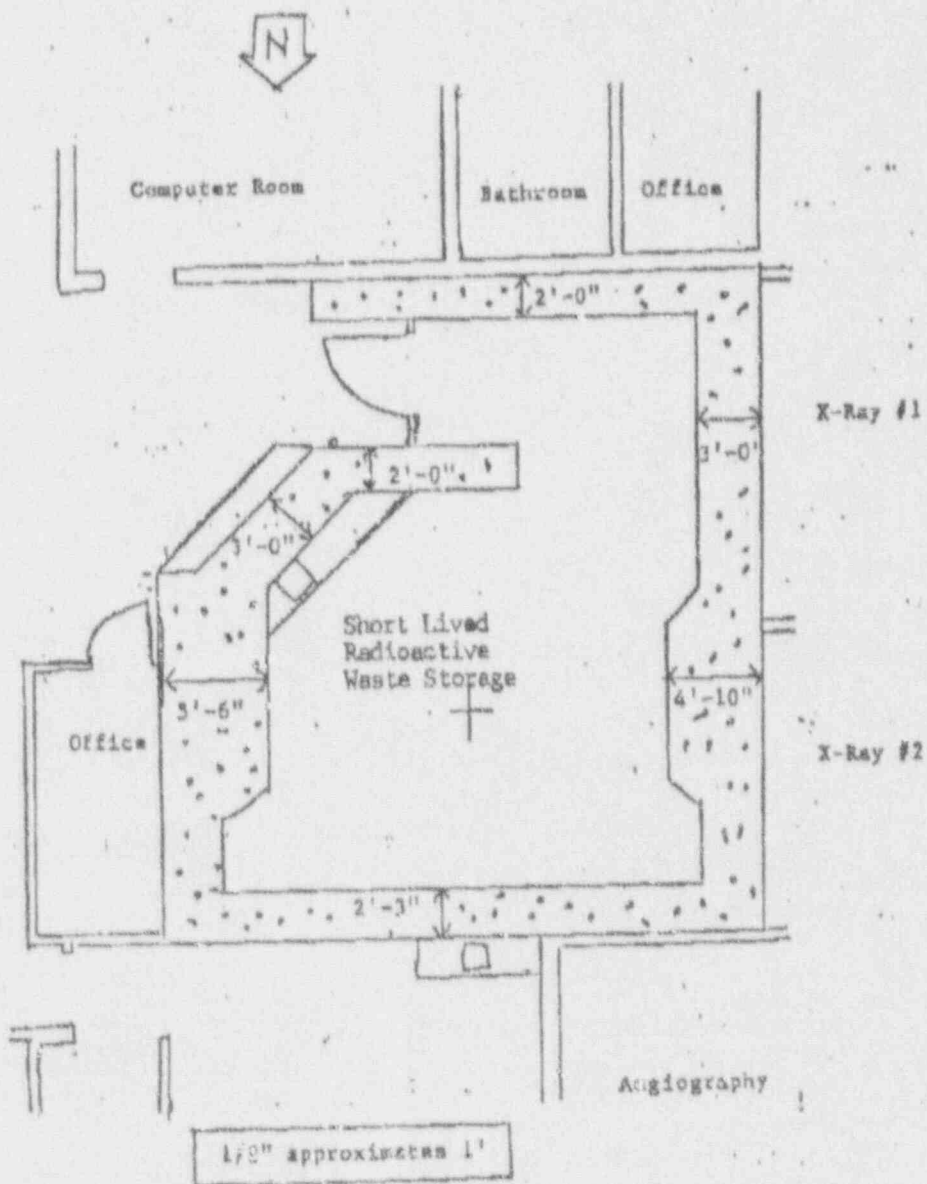
FEE EXEMPT

RAMP 2

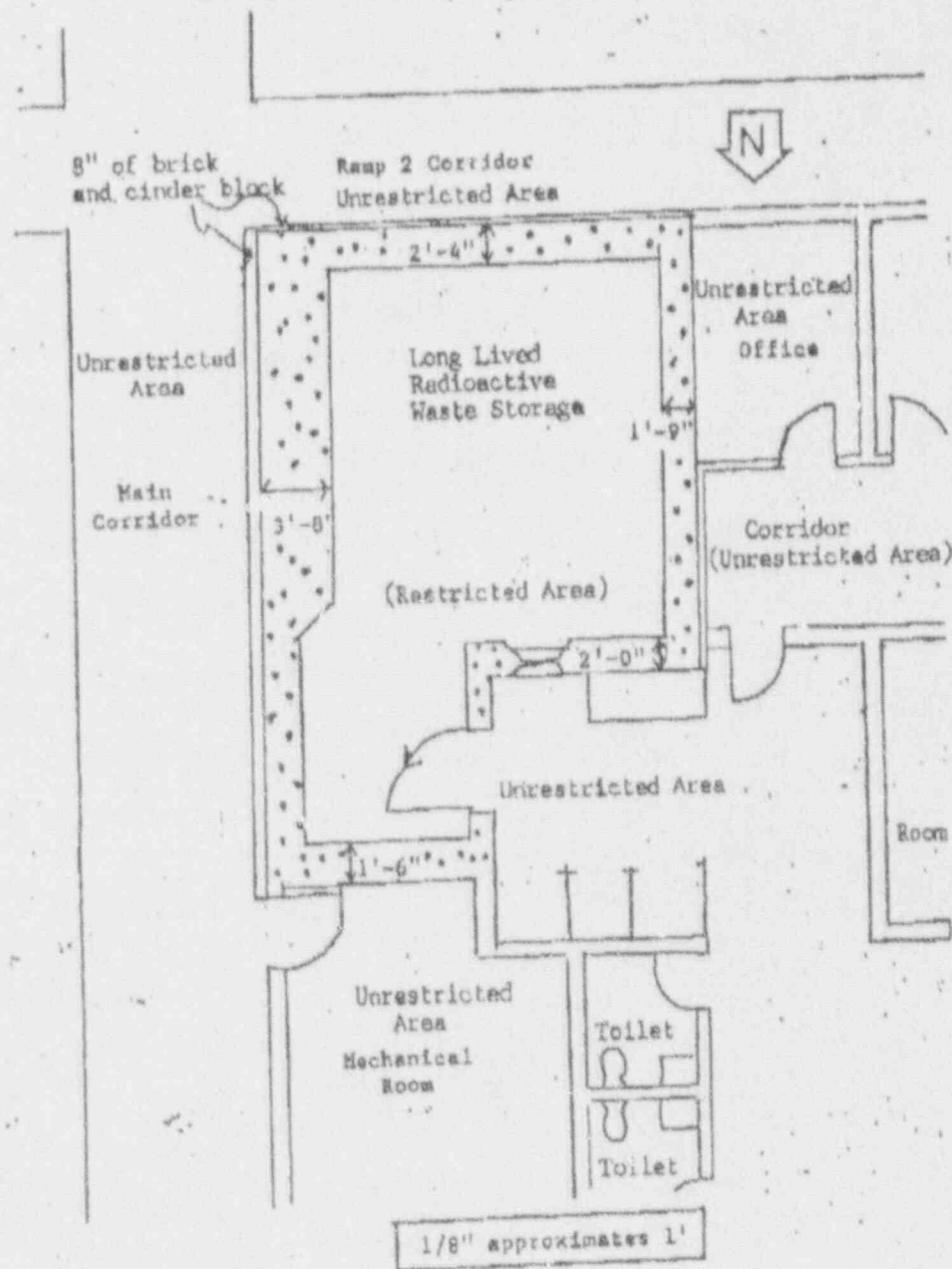
MAIN CORRIDOR




Scale 1/16" = 1'



Building 9909
Madigan Army Medical Center



 = Concrete (Assumed to be 2.35 g/cm³) per NCRP Report No. 35

slow Floor = No Occupancy

TRAINING AND EXPERIENCE
 SERGEANT FIRST CLASS WILLIAM P. MENZEL
 Compliance with 10 CFR Part 35.900(b)

1. Compliance with 10 CFR Part 35.900(b)(1)

<u>Location</u>	<u>Course</u>	<u>Dates</u>
Armed Forces Radiobiology Research Institute Bethesda, MD	Reactor Operators	JAN 82 - MAR 83
Bethesda, MD	Medical Effects of Nuclear Weapons Course (1 week)	1984
Ft Sam Houston, TX	X-Ray Survey Techniques Course (1 Week)	MAY 1985
Ft Belvoir, VA	Health Physics Radiation Protection Course (2 weeks)	1985
FT Belvoir, VA	Radioactive Waste Disposal Course (1 week)	1985
U.S. Environmental Hygiene Agency Aberdeen Proving Ground, MD	AMEDD Physics and Military Medicine Course (1 Week)	1985 - 1992
Madigan Army Medical Center Tacoma, WA	Operational Health Physics	Jan - Dec 1992

<u>Field of Training</u>	<u>Lecture</u>	<u>Laboratory</u>
Radiation Physics and Instrumentation	150	100
Radiation Protection	200	120
Mathematics Pertaining to the Use and Measurement of Radioactivity	75	
Radiation Biology	60	
Radiopharmaceutical Chemistry	20	10

2. The requirement listed in 10 CFR 35.900(b)(2) for experience on a NRC license authorizing medical use will be in met January 1993.

SFC William P. Menzel
TRAINING AND EXPERIENCE, cont.

3. Experience with Radiation:

Madigan Army Medical Center, Tacoma WA.

Medical Use

<u>Isotope</u>	<u>Duration of Experience</u>	<u>Maximum Amount</u>
Byproduct Material 10 CFR 35.100	JAN 92 - DEC 92	As Needed
Byproduct Material 10 CFR 35.200 (Excluding Xenon - 133)	JAN 92 - DEC 92	As Needed
Byproduct Material 10 CFR 35.300	JAN 92 - DEC 92	As Needed
Byproduct Material 10 CFR 31.11 (Prepackaged Kits)	JAN 92 - DEC 92	As Needed

<u>MATERIAL</u>	<u>FORM</u>	<u>QUANTITY (mCi)</u>
Cobalt 57	Cyanocobalamine	2.0
Gallium 67	Citrate	80.0
Strontium 90	Eye Applicator	2000 reps/min
Indium 111	DTPA	6.0
Iodine 123	Capsule	5.0
Iodine 125	Any	35
Iodine-129	Radiopharmaceuticals	10
Iodine-131	Any	200
Technetium-99m	Radiopharmaceuticals	500
Thallium 201	Chloride	50.0
Atomic No.s 1-95	Sealed Sources	10.0 per source
Cesium-137	Brachytherapy sources	100 Ci
Iridium-192	Brachytherapy sources	100 Ci

SFC William P. Menzel
TRAINING AND EXPERIENCE, cont.

Experience Using Ionizing Radiation

Non-Medical

Research Reactor, TRIGA, 2500 MW Pulsing/1MW Steady State	
Irradiated and Handled Experiment with atomic #3-83	Up to 1 Ci
Produced Kr-85 for Calibration and Experiments	1 Ci
Produced Ar-41 for Calibration and Experiments	1 Ci
Plutonium-Beryllium, Neutron Source	3 Ci
Co-60 Irradiator	100,000 Ci
Co-60 Theratron-80 Source	3,000 Ci
Cs-137 J.L. Shepard Dual Source Calibrator	130 Ci & 130 mCi
Ra-228 Source	10 mCi
H-3	167 Ci
Sr-90	100 mCi
Depleted Uranium	500 kilograms
Am-241	5 Ci
Pu-241	100 mCi
Th-232	100 mCi