# MATERIALS LICENSE

Amendment No. 61

frsuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Jode of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 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 bypsoduct, 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

Licensee  1 Department of the Army Walter Reed Army Medical Center (WRAMC)  2 Washington, D.C. 20307-5001		In accordance with letter dated April 8, 1992, 3. License number 08-01738-02 is amended in its entirety to read as follows:  4. Expiration date April 30, 1993	
6. Byproduct, source, and/or special nuclear material	7. Chemical and form		8. Maximum am may possess a under this license
A. Any byproduct material atomic numbers 1-83	with A. Any		A. 400 millicuries of each radionuclide with a tot possession limit of 26 curies
. Iodine 131 . Xenon 133 . Krypton 85	B. Any C. Any D. Any	•	B. 2 curies C. 2 curies D. 1 curie
. Gold 198 . Phosphorus 32 . Carbon 14	E. Any F. Any G. Any		E. I curie F. 2 curies G. 2 curies
. Iodine 125 . Iridium 192 . Chromium 51	H. Any I. Any J. Any		<ul><li>H. 1 curie</li><li>I. 1 curie</li><li>J. 750 millicuries</li></ul>
Sulfur 35 Hydrogen 3 Molybdenum 99	K. Any L. Any M. Molybdenum Technetium		<ul><li>K. 1 curie</li><li>L. 5 curies</li><li>M. 23 curies</li></ul>
. Technetium 99m . Strontium 90	Technetium Generators N. Any O. Sealed sou	n 99m ;	M. 23 curies N. 23 curies

S. Iodine 125 T. Iodine 125

P. Cesium 137

R. Iodine 125

Q. Gadolinium 153

S. Sealed sources (3M Company seeds)

P. Sealed sources

Q. Sealed sources

R. Sealed sources

(3M 6D6C-CA)

T. Sealed sources (AECL Models C235 or C324, or Amersham Corp. Model IMC.P2)

(Norland Inst. Co., Model 178A591A)

- 500 millicuries
- P. 2 curies
- Q. 2 curies
- R. 400 millicuries
- S. 500 millicuries
- T. 4 sources, not to exceed 300 millicuries each

ATTACHMENT 11.1.3

# MATERIALS LICENSE SUPPLEMENTARY SHEET

License number Docket of Reference number 030-01317

Amendment No. 61

# (Items 6., 7. & 8. continued)

- 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. Cesium 137 V. Cobalt 60 W. Americium 241

- U. Sealed sources V. Sealed sources W. Any
- U. 1.200 millicuries V. 500 millicuries W. 100 microcuries X. 20.5 curies

X. Americium 241

- X. Sealed sources (Monsanto Model NRC-
- Y. 1 curie

Y. Nickel 63 Z. Iodine 129 AA. Thorium

- Y. Sealed sources and foils Z. Sealed sources AA. Any
- Z. 1 curie AA. 5 kilograms BB. 50 kilograms

- BB. Uranium CC. Uranium depleted in
- BB. Any CC. Plated Metal
- CC. 400 kilograms

- Uranium 235 DD. Americium 241
- DD. Sealed sources EE. Sealed source
- DD. 200 millicuries EE. 150 curies

EE. Cesium 137

- (American Nuclear
- Corporation Model 127) FF. Sealed sources.

FF. Cesium 137

- (3M 6D6C-CA) 27. 京省省 10.
- FF. 50 millicuries

# Authorized use

- A. through T. Medical research, diagnosis, and therapy; research and development as defined in 10 CFR 30.4.
- U. through Z. Research and development as defined in 10 CFR 30.4: teaching.

AA. and BB. Teaching and laboratory research.

CC. Shielding

DD. Standards and reference sources.

EE: In an Eberline Instrument Corporation Model 8150-150 CS for calibration of instruments.

FF. Instrument calibration.

### CONDITIONS

#### 10. Location of use:

Walter Reed Army Medical Center, Washington, D. C.; WRAMC Forest Glen Section and Annex, Silver Spring, Maryland; Walter Reed Army Institute of Research Animal Holding Facility, Fort Meade, Maryland; U.S. Army Medical Laboratory, WRAMC Department of Pathology, Fort Meade, Maryland; and U.S. Army Institute of Dental Research Facility, Fort Meade, Maryland; Rickman Building, 13 Taft Court, Rockville, Maryland; Key West Research Center, 9620 Medical Center Drive, Rockville, Maryland. Walter Reed Army Medical Center, Washington, D. C.; WRAMC Forest Glen Section and Research Center, 9620 Medical Center Drive, Rockville, Maryland.

11. Radiation Safety Officer: LTC Arthur G. Samiljan.

MATERIALS LICENSE SUPPLEMENTARY SHEET

License number		
	08-01738-02	
Docket or Reference nu	impet	
	030-01317	

Amendment No. 61

(Continued)

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#### CONDITIONS

- 12. A. Licensed material shall be used by, or under the supervision of, individuals designated by the licensee's Radiation Safety Committee, Col. Joan T. Zajtchuk, Chairman.
  - B. The use of licensed material in or on humans shall be by a physician as defined in Section 35.2 of 10 CFR Part 35.
  - C. Physicians designated to use licensed material in or on humans shall meet the training criteria established in 10 CFR Part 35, Subpart J.
- 13. Experimental animals administered licensed materials or their products shall not be used for human consumption.
- 14. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, 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.
- 15. 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.
- 16. 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.
- 17. 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).
- 18. The licensee may transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."
- 19. If only a single radionuclide specified in NUREG 0767, is possessed, the possession limit is the quantity specified in <u>Schedule of Limiting Possession Limits</u>, NUREG-0767. If two or more radionuclides are possessed, the possession limit for each is determined as follows: the sum of the quotients of the quantities possessed divided by the quantities of those radionuclides specified in the <u>Schedule of Limiting Possession Limits</u>, NUREG-0767 shall not exceed unity.
- 20. 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.

Licensa sumber Docket or Reference number 030-01317

Amendment No. 61

MATERIALS LICENSE SUPPLEMENTARY SHEET

(20. continued)

# CONDITIONS

- Before disposal as normal waste, radioactive waste shall be surveyed to R. determine that its radioactivity cannot be distinguished from background. All radiation labels shall-be removed or obliterated.
- Generator columns shall be segregated so that they may be monitored separately C. to ensure decay to background levels prior to disposal.
- Except as specifically provided otherwise in this license, the licensee shall conduct 21. 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.
  - Α. Application dated July 18, 1979
  - Letter dated January 13, 1984 Letter dated May 8, 1987

  - Letter dated March 16, 1988 D.
  - Ε. Letter dated March 28, 1988
  - Application dated August 5, 1988 --
  - Letter dated September 23, 1988 G.
  - Н. Letter dated July 28, 1989
  - I. Letter dated September 12, 1989
  - Letter dated January 19, 1990 J.
  - Letter dated July 16, 1990
  - Letter dated March 15, 1991 L.

  - M. Letter dated July 11, 1991
    N. Paragraphs 4 and 5 of the letter dated April 8, 1992
  - O. Letter dated August 4, 1992

For the U.S. Nuclear Regulatory Commission

Nuclear Mazerials

Region I King of Prussia. Pennsylvania

SEP 0 9 1992 Date



# UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PENNSYLVANIA 19406-1415

SEP 09 1992

Docket Nos. 030-01317 030-06895 License Nos. 08-01738-02 08-01738-03

Department of the Army Walter Reed Army Medical Center

ATTN: Col. Donald A. Johnson, MHA, M.A.C.H.E.

Chief of Staff

Washington, D.C. 20307-5001

Dear Colonel Johnson:

Subject: Routine Inspection Nos. 030-01317/92-001 and 030-06895/92-001.

From August 11 to 14, 1992, Ms. Penny Nessen and Mr. William Davidson of this office conducted a routine safety inspection at the above address of activities authorized by the above listed NRC licenses. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selective examination of representative records. The findings of the inspection were discussed with Colonel Francis O'Donnell and LTC Arthur Samiljan of your staff at the conclusion of the inspection.

Based on the results of this inspection, it appears that some of your activities were not conducted in full compliance with NRC requirements. A Notice of Violation is enclosed as Appendix A and categorizes each violation by severity level in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy). You are required to respond to this letter and in preparing your response, you should follow the instruction in Appendix A.

Please use the enclosed self-addressed green envelope when you respond to this letter to assist us in the timely processing of your response.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and your reply will be placed in the Public Document Room.

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Your cooperation with us is appreciated.

Sincerely,

Mohamed M. Shanbaky, Chief Medical Inspection Section Division of Radiation Safety and Safeguards

Enclosure: Appendix A, Notice of Violation

cc:

Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
District of Columbia
State of Maryland
LTC Arthur Samiljan, Radiation Safety Officer

# APPENDIX A

# NOTICE OF VIOLATION

Department of the Army Walter Reed Army Medical Center Washington, District of Columbia 20307-5001 Docket No. 030-01317 License No.08-01738-02

As a result of the inspection conducted from August 11-14, 1992, and in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy) (1992), the following violations were identified:

A. 10 CFR 20.201(b) requires that each licensee make such surveys as may be necessary to comply with the requirements of Part 20 and which are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. As defined in 10 CFR 20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

Contrary to the above, the licensee did not make surveys to assure compliance with 10 CFR 20.105(b) which limits radiation levels in unrestricted areas. Specifically, from July 1, 1991, to June 2, 1992, the licensee housed iodine-131 patients in room 7437 and did not verify that radiation levels in all unrestricted areas (i.e. the hallway and the doorway) did not exist which, if an individual were continuously present in the area, could have resulted in his receiving a dose in excess of two millirems in any one hour.

This is a Severity Level IV violation (Supplement IV).

B. 10 CFR 35.315(a)(8) requires, in part, that a licensee measure the thyroid burden of each individual who helped administer dosages of iodine-131 in amounts that required the patient to be hospitalized for compliance with 10 CFR 35.75, and that the measurements be performed within three days after the administration of the dosage.

Contrary to the above, on September 13, 1991, September 25, 1991, November 25, 1991, December 6, 1991, April 23, 1992, and June 2, 1992, the licensee administered to therapy patients, 129.7, 97.5, 151, 153.1, 153., and 58.6 millicuries of iodine-131, respectively, dosages which requires hospitalization for compliance with 10 CFR 35.75, and the licensee did not measure the thyroid burden of the nuclear medicine physician who helped administer the dosages.

This is a Severity Level IV violation (Supplement VI).

C. 10 CFR 35.404(b) requires, in part, that immediately after removing the last temporary implant source from a patient, the licensee make a radiation survey of the patient with a radiation detection survey instrument to confirm that all sources have been removed and retain a record of the patient survey for three years.

Contrary to the above, on November 19, 1991, and April 17, 1992, the licensee removed cesium-137 temporary implant sources from a patient, made a radiation survey of the patient with a radiation detection survey instrument to confirm that all sources had been removed, but did not retain a record of the patient survey for three years.

This is a Severity Level V violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Department of the Army-Walter Reed Army Medical Center is hereby required to submit to this office within thirty days of the Date of the Letter which transmitted this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending this response time.

SEG RAGING-PRO BRD: YE
ESTED SEQU: Dletea

m proc

COLUNS, Cyne SSN 228-68— PROGRAM START

BRIEFED: YES ESTIMATED DUE SECTION: VI FUE

2.

1 10

HSHL-HP (385-11k)

MEMORANDUM FOR RECORD

SUBJECT: Spill, Nuclear Medicine Clinic

- 1. On 22 September 1989 SGT Moyes and SPC Ward of the Walter Reed Health Physics Office responded to a telephonic message from MAJ Minton of the Nuclear Medicine Clinic at 0900 in regard to a spill. Upon arrival information was gathered from MAJ Minton that the spill had occurred at 0300 and was a flood containing 5 uCi 99Tc. Information provided said that Edith Lima-Brown had dropped the flood, and fell in the liquid. She changed clothes and put her contaminated clothes and shoes in a bag. The spill was cleaned and covered. At the completion of that morning's shift, Ms Brown had taken her clothing and shoes home with her. At this point SFC Bautista was informed that these items must be retrieved. A survey was conducted and re-covered. The specimens were returned to the Health Physics Office and tested. Results showed that the spill area was still highly contaminated. SFC Bautista was notified that the area must be cleaned again.
- 2. Upon the 2nd arrival, the floor was found uncovered. SSG Dunkle claimed that the area was cleaned, and their survey instrument did not detect any contamination. A second survey was conducted and our instrument detected a high amount of radiation. We were also informed by SFC Bautista that they could not get in contact with Ms Brown because they did not have a current telephone number or address for her. Therefore the uniform and shoes were unable to be retrieved. The second survey was completed and the floor was re-covered before returning to the Health Physics Office. The second survey yielded results that were almost identical to those of the first survey.
- 3. At this point we were unable to contact Nuclear Medicine due to it being late Friday afternoon and the staff had already left for the weekend.

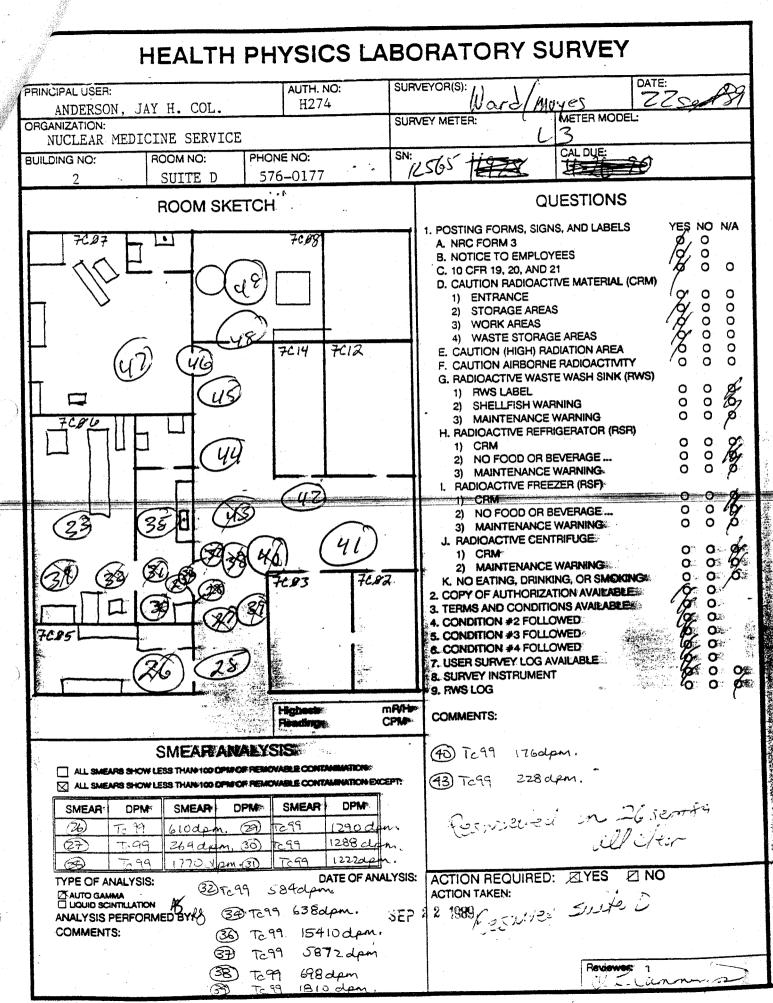
MARK A. MOYES

SGT, USA

Operations Section

MartAllogo

WRAMC Health Physics Office



WRAMC FORM TOO TOTAL SOURCE MAY BE USED UNTIL ECHALISTE

#### HEALTH PHYSICS LABORATORY SURVEY DATE: SURVEYOR(S) AUTH, NO: SRINCIPAL USER: toNTAME H274 26 SEPS ANDERSON, JAY H. COL. METER MODEL: SURVEY METER: ORGANIZATION: NUCLEAR MEDICINE SERVICE CAL DUE: SN: PHONE NO: BUILDING NO: ROOM NO: 16 FEB 70 12005 576-0177 SUITE D QUESTIONS ROOM SKETCH \*\* 1. POSTING FORMS, SIGNS, AND LABELS YES NO N/A 7008 0 A. NRC FORM 3 B. NOTICE TO EMPLOYEES 0 0 0 0 0 C. 10 CFR 19, 20, AND 21 D. CAUTION RADIOACTIVE MATERIAL (CRM) 0 0 0 1) ENTRANCE 0 0 0 2) STORAGE AREAS O 0 3) WORK AREAS 4) WASTE STORAGE AREAS 0 E. CAUTION (HIGH) RADIATION AREA 0 7CI2 F. CAUTION AIRBORNE RADIOACTIVITY 0 0 G. RADIOACTIVE WASTE WASH SINK (RWS) 0 0 0 1) RWS LABEL 0 0 SHELLFISH WARNING 2) 3) MAINTENANCE WARNING 0 H. RADIOACTIVE REFRIGERATOR (RSR) 0 0 0 1) CRM O O 0 2) NO FOOD OR BEVERAGE ... 46 0 0 3) MAINTENANCE WARNING I. RADIOACTIVE FREEZER (RSF) 1) CRM Ö O NO FOOD OR BEVERAGE ... 0 0 3) MAINTENANCE WARNING 0 J. RADIOACTIVE CENTRIFUGE 0 0 1) CRM 0 0 2) MAINTENANCE WARNING Ö K. NO EATING, DRINKING, OR SMOKING 7682 0 0 2. COPY OF AUTHORIZATION AVAILABLE 0 0 3. TERMS AND CONDITIONS AVAILABLE 0 0 4. CONDITION #2 FOLLOWED 0 0 5. CONDITION #3 FOLLOWED 0 0 6. CONDITION #4 FOLLOWED 0 0 7. USER SURVEY LOG AVAILABLE 0 0 O 8. SURVEY INSTRUMENT 0 9. RWS LOG Highest COMMENTS: Reading : CPM \* CART - FREWLARY USED TO PLATE SMICKE, CATES, SMEAR ANALYSIS ALL SMEARS SHOW LESS THAN 100 OPM OF REMOVABLE CONTANIMATION ALL SMEARS SHOW LESS THAN 100 OPM OF REMOVABLE CONTAMINATION EXCEPT: DPM DPM SMEAR DPM SMEAR SMEAR NO DATE OF ANALYSIS: ACTION REQUIRED: ZYES TYPE OF ANALYSIS: **ACTION TAKEN:** ZAUTO GAMMA ZUQUID SCINTILLATION OCT 0 2 1989 ANALYSIS PERFORMED BY: COMMENTS: Haylowed Currings