UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

March 26, 1996

Department of the Army
Fitzsimons Army Medical Center
ATTN: CPT Annette Boatwright
HSHG-RP
Aurora, Colorado 800455001

SUBJECT: LICENSE EXTENSION

Please find enclosed License No. 05-00046-13. You should review this license carefully and be sure that you understand all conditions. If you have any questions, you may contact the reviewer who signed your license at 817-860-8143.

After reviewing the Fitzsimons Army Medical Center (FAMC) schedule for decommissioning, NRC has determined that allowing FAMC to continue operating under the conditions of its current license is reasonable until all licensed uses end in June 1996. Note License Condition 23 restricts FAMC to only decommissioning activities until the base closure in 1999. This amendment also extend the expiration date until December 31, 1999. If the FAMC schedule for decommissioning changes, you should notify us immediately.

In addition, as part of your decommissioning activities, you should be prepared to address the safety hazards associated with the radioactive waste burials that were conducted pursuant to 10 CFR 20.302 and 20.304. We recommend that you refer to NUREG 1101 to identify the type of information that should be submitted for our review and NUREG 1500

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.

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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 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,

Original Signed By
Vivian H. Campbell

Vivian H. Campbell
Senior Health Physicist
Nuclear Materials Licensing Branch

Docket: 030-01233
License: 05-00046-13
Control: 463369

Enclosures: As stated

Amendment No. 57

05-00046-13

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, 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	
1. Department of the Army	In accordance with letter dated August 8, 1995 3. License number 05-00046-13 is amended in its entirety to read as follows:
2. Fitzsimons Army Medical Center ATTN: HSHG-RP Aurora, Colorado 80045-5001	4. Expiration date December 31, 1999
	5. Docket or Reference No 030-01233

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 1 through 83	A. Any except sealed sources	A. Not to exceed 500 millicuries per radionuclide except: H-3 - 5 curies Mo-99 - 10 curies Tc-99m - 10 curies I-125 - 1 curie I-131 - 2 curies Xe-133 - 2 curies
B. Any byproduct material with atomic numbers 1 through 96	B. Sealed sources	B. Not to exceed 2 curies per source
C. Uranium, Natural or Depleted	C. Shielding material	C. Not to exceed 999 kilograms

9. Authorized use:

A. and B. Medical research, diagnosis, and therapy. In vitro studies. Studies in laboratory animals.

C. Shielding in Molybdenum-99/Technetium-99m generators.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
-00046-13
Docket or Reference number
030-01233
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CONDITIONS

10. Licensed material shall be used only at Fitzsimons Army Medical Center, 12101 East Colfax Avenue, Aurora, Colorado.

11. A. Licensed material shall be used by, or under the supervision of, individuals designated by the FAMC Radiation Control Committee.

B. The Radiation Safety Officer for this license is CPT Annette Boatwright.

12. 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.

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.

D. Sealed sources 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.

12. (Continued)

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 in accordance with 10 CFR 30.50(b)(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, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Radiation Safety and Safeguards. The report shall specify the source involved, the test results, 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.

13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.

14. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.

15. A. Detector cells containing a titanium tritide foil or a scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents the foil temperature from exceeding that specified by the manufacturer and approved by U.S. Nuclear Regulatory Commission.

B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside.

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.

17. Notwithstanding the requirements of 10 CFR 35.49(a) and (b), 10 CFR 35.100, 10 CFR 35.200, 10 CFR 35.300, 10 CFR 35.400, and 10 CFR 35.500, the licensee may use for any medical use any byproduct material or reagent kit. The licensee shall possess and use byproduct material for medical use in accordance with the prescriptive and performance criteria in the other sections of 10 CFR 35. This does not relieve the licensee from complying with applicable United States Food and Drug Administration (FDA) and other Federal and State requirements.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number: UO-00046-13
Docket or Reference number: 030-01233
Amendment No. 57

18. Patients containing cobalt-60, cesium-137, or iridium-192 implants shall remain hospitalized until a source count and surveys made with an appropriate radiation detection instrument indicate that all implants have been removed. The results of these surveys shall be recorded and maintained for inspection by the Commission for 5 years from the time the implants are removed.

19. Patients containing iodine-131 for the treatment of thyroid carcinoma (or patients containing therapeutic quantities of gold-198) shall remain hospitalized until the residual activity is 30 millicuries or less.

20. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 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 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. 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.

21. 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."

22. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License nur
05-00046-13

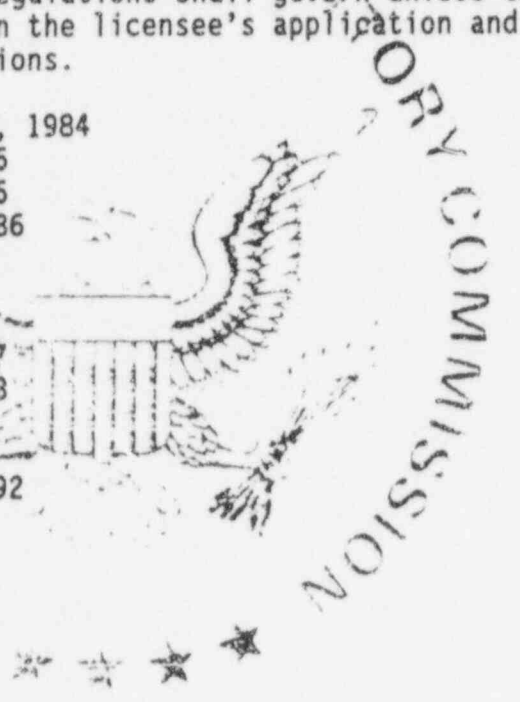
Docket or Reference number
030-01233

Amendment No. 57

23. As of July 1, 1996, the licensee's authorized activities are limited to those decommissioning activities necessary to decontaminate facilities and equipment, package materials for radioactive material transfer or waste disposal, and other activities as may be necessary to release the equipment and facilities for unrestricted use.

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 February 6, 1984
B. Letter dated October 29, 1985
C. Letter dated December 4, 1985
D. Letter dated February 27, 1986
E. Letter dated May 21, 1986
F. Letter dated August 18, 1986
G. Letter dated July 8, 1987
H. Letter dated November 4, 1987
I. Letter dated October 11, 1988
J. Letter dated May 10, 1989
K. Letter dated April 5, 1990
L. Letter dated February 28, 1992
M. Letter dated October 9, 1992
N. Letter dated May 10, 1995
O. Letter dated April 25, 1995
P. Letter dated July 5, 1995
Q. Letter dated August 8, 1995



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date MAR 26 1996

By Original Signed By
Vivian H. Campbell

Nuclear Materials Licensing Branch
Region IV
Arlington, Texas 76011

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

July 25, 1996

U.S. Environmental Protection Agency
Regional Radiation Program Manager
Region 8
One Denver Place
999 18th Street
Denver, Colorado 80202-2405

SUBJECT: EPA REFERRAL FORM

In accordance with the 1992 Memorandum of Understanding between the Nuclear Regulatory Commission (NRC) and the Environmental Protection Agency (EPA), I am enclosing the EPA Referral Form relative to air emissions from the Department of the Army, Fitzsimons Army Medical Center, Aurora, Colorado, NRC License 05-00046-13. Should you require any additional information regarding the details of the licensee's air emissions, the resulting doses, or the methods used to obtain these doses, please refer these inquiries to the licensee representative indicated in the "Contact" entry on the Form.

Please contact this office at (817) 860-8100 if you have any other questions regarding the inspection findings.

Sincerely,

Charles A. Hackney
Regional State Liaison Officer
NRC Region IV

Docket: 030-01233
License: 05-00046-13

Enclosure: As stated

cc w/enclosure:
C.J. Jones, NMSS/IMNS (8-F-5)(TWFN)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

July 25, 1996

MEMORANDUM TO: U.S. Environmental Protection Agency
Regional Radiation Program Manager
Region 8
One Denver Place
999 18th Street
Denver, Colorado 80202-2405

FROM: U.S. Nuclear Regulatory Commission
Region IV

Inspector: Jeffrey Cruz Phone: 817-860-8164

Inspection Dates: July 17, 1996 License No.(s): 05-00046-13

Licensee: Department of the Army, Fitzsimons Army Medical Center

Contact: Captain Annette Boatwright Phone: 303-361-4289

Address: Aurora, Colorado

Licensee's ALARA goal if greater than 20% of Appendix B, Part 20:

_____ % Appendix B, Part 20 (_____ mrem)

If >20% Appendix B, has NRC approved this goal? ___(Yes) ___ (No)

Classification of Effective Dose Equivalent:

Above licensee's ALARA goal? ___ (Yes) X (No)

Above NRC Regulatory Guide 8.37 ALARA goal? ___ (Yes) X (No)
[100 μSv/yr (10 mrem/yr)]

Insufficient information to estimate dose? ___ (Yes) X (No)

NRC FORM 591 PART 1
(7-91)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION

Page 1 of ____

1. LICENSEE	2. REGIONAL OFFICE
	REGION IV U S NUCLEAR REGULATORY COMMISSION 611 RYAN PLAZA DRIVE SUITE 400 ARLINGTON TX 76011-8064

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE OF INSPECTION

LICENSEE:
The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The findings as a result of this inspection are as follows:

☒ 1. Within the scope of this inspection, no violations were observed.

☒ 2. The inspector also verified the steps you have taken to correct the violations identified during the last inspection. We have no further questions on those actions at this time.

☐ 3. During this inspection certain of your activities, as described below or attached, were in violation of NRC requirements. This form is a **NOTICE OF VIOLATION**, which is required to be posted in accordance with 10 CFR 19.11.

☐ A. _____ was not properly posted to indicate the presence of a _____. 10 CFR 20.203(b),(c),(d),(e) or 34.42.

☐ B. _____ of sealed sources were not performed at the proper frequencies. 10 CFR _____ or License Condition Number _____.

☐ C. Records of _____ were not properly maintained. 10 CFR _____ or License Condition Number _____.

☐ D. Documents were not properly posted or otherwise made available. 10 CFR 19.11.

☐ E. Reports or notification of _____ were not made in accordance with 10 CFR _____ or License Condition Number _____.

☐ F. _____

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I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified in the items checked above. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201. No further response will be submitted unless required by the NRC.

SIGNATURE -- LICENSEE	DATE	SIGNATURE -- NRC INSPECTOR	DATE
9607260267 960717 PDR ADOCK 03001233 C PDR			7/17/96

NRC FORM 591 Part 1 (7-91)

☆ U.S. GOVERNMENT PRINTING OFFICE 1002-327

NRC FORM 591 PART 1
(7-91)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION

1. LICENSEE
DEPARTMENT OF THE ARMY
FITZSIMONS ARMY MEDICAL CENTER
ATTN: HSHG-RP
AURORA COLORADO 80045-5001

2. REGIONAL OFFICE
REGION IV
U S NUCLEAR REGULATORY COMMISSION
611 RYAN PLAZA DRIVE SUITE 400
ARLINGTON TX 76011-8064

3. DOCKET NUMBER(S) /REPORT NO	4. LICENSE NUMBER(S)	5. DATE OF INSPECTION
030-01233/96-01	05-00046-13	17 JUL 96

LICENSEE:
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[ ] C. Records of _____ were not properly maintained. 10 CFR _____ or License Condition Number _____.

[ ] D. Documents were not properly posted or otherwise made available. 10 CFR 19.11.

[ ] E. Reports or notification of _____ were not made in accordance with 10 CFR _____ or License Condition Number _____.

[ ] F. _____

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SIGNATURE – LICENSEE	DATE	SIGNATURE – NRC INSPECTOR	DATE
9607260267			7/17/96