

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		In accordance with letter dated April 17, 1997	
1. Department of the Army Reynolds Army Community Hospital		3. License number 35-10202-01 is amended in its entirety to read as follows:	
2. 4300 Mow-Way Road Fort Sill, Oklahoma 73503		4. Expiration date February 28, 2003	
		5. Docket or Reference No 030-02902	
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 31.11	C. Prepackaged Kits	C. As needed	
D. Iodine-131	D. Iodide	D. 50 millicuries	
9. Authorized use			
A. Medical use described in 10 CFR 35.100.			
B. Medical use described in 10 CFR 35.200.			
C. <u>In vitro</u> studies.			
D. Diagnosis and treatment of hyperthyroidism and cardiac dysfunction.			

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

35-10202-01

Docket or Reference Number

030-02902

Amendment No. 28

CONDITIONS

10. A. Location of use: Building 4301 Mow-Way Road, Fort Sill, Oklahoma.
- B. Location of storage: Building 4300 or Building 4301 Mow-Way Road, Fort Sill, Oklahoma.
11. Radiation Safety Officer: MAJ Scott L. Rossow
12. Authorized Users:
 - 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 35, Subpart J and shall be designated by the licensee's Radiation Safety Committee.
13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

35-10202-01

Docket or Reference Number

030-02902

Amendment No. 28

14. 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 U.S. 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 March 15, 1990
- B. Facsimile dated January 12, 1993
- C. Letter dated January 28, 1993
- D. Letter dated February 10, 1993
- E. Letter dated May 12, 1993
- F. Letter dated July 15, 1993
- G. Facsimile dated January 7, 1994
- H. Letter dated February 24, 1994
- I. Facsimile dated May 4, 1994
- J. Letter dated July 25, 1994

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date APR 28 1997

By *Marjorie D. Cook*
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

April 28, 1997

Department of the Army
Reynolds Army Community Hospital
ATTN: Cynthia A. Jones
Administrative Officer
4300 Mow-Way Road
Fort Sill, OK 73503

SUBJECT: LICENSE AMENDMENT

Please find enclosed License No. 35-10202-01. 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 817-860-8132.

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.

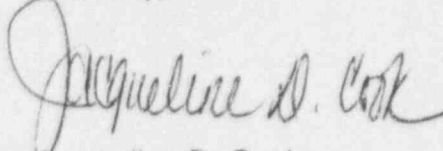
You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil 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.

Department of the Army
Reynolds Army Community Hospital

-3-

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script, reading "Jacqueline D. Cook". The signature is written in dark ink and is positioned above the printed name.

Jacqueline D. Cook
Health Physicist
Nuclear Materials Licensing Branch

Docket: 030-02902
License: 35-10202-01
Control: 466375

Enclosures: As stated

APR 28 1997

Department of the Army
Reynolds Army Community Hospital

-4-

DOCUMENT NAME: I:\MLCOVER\LETTER\REYNOLDS.MLC

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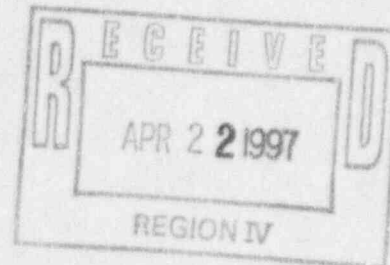
DEPARTMENT OF THE ARMY
HEADQUARTERS U.S. ARMY MEDICAL DEPARTMENT ACTIVITY
FORT SILL, OKLAHOMA 73503-6300

REL Y TO
ATTENTION OF:

April 17, 1997

Chief, Health Physics Section

Mrs. Jacqueline Cook
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064



Dear Mrs. Cook:

I am providing you with an informational copy of the request to amend our license (BML No. 35-10202-01) to reflect Major Scott L. Rossow as Radiation Safety Officer. The official request is being routed through U.S. Army Command channels as specified in the enclosed memorandum. Major Rossow is an authorized user of radioactive material under our license.

This change is necessary because I am being reassigned to San Antonio, Texas and will depart approximately May 3, 1997. I would appreciate your earliest assurance that Major Scott L. Rossow's qualifications are acceptable to serve as Radiation Safety Officer. Please respond by phone or facsimile to the undersigned at (405) 442-5211 or (405) 442-5816, respectively.

Sincerely,

Francis M. Fota
Captain, U.S. Army
Chief, Health Physics Section
Radiation Protection Officer

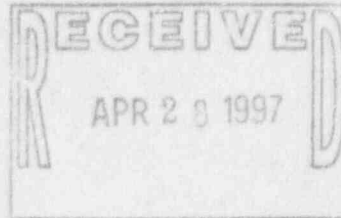
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DEPARTMENT OF THE ARMY
HEADQUARTERS U.S. ARMY MEDICAL DEPARTMENT ACTIVITY
FORT SILL, OKLAHOMA 73503-6300

REPLY TO
ATTENTION OF:

MCUA-PMR (385-11m)



17 April 1997

MEMORANDUM THRU

Commander, Brooke Army Medical Center, ATTN: MCHE-DHR (CPT TAYLOR) *cht*
BLDG 1188 / 2780 McIndoe Road, Fort Sam Houston, TX 78234-6390

Headquarters, U.S. Army Medical Command, ATTN: MCHO-CL-W (COL DAXON)
2050 Worth Road, Fort Sam Houston, TX 78234-6000

FOR U.S. Nuclear Regulatory Commission, Region IV, Parkway Central Plaza,
Building 611, Ryan Plaza Drive, Arlington, TX 76011

SUBJECT: Amendment of U.S. Nuclear Regulatory Commission (NRC) By-product
Material License No. 35-10202-01, Reynolds Army Community Hospital, Fort Sill,
Oklahoma 73503-6300

1. Request that the USNRC BML No. 35-10202-01 issued to Reynolds Army
Community Hospital is amended to reflect the following changes:

MAJ Scott L. Rossow - Radiation Safety Officer.

2. Documents used to support the Radiation Control Committee's approval of
MAJ Rossow as an authorized user of radioactive material under our license and
a copy of the Radiation Control Committee minutes are enclosed.

3. This change is necessary because our current Radiation Safety Officer
(CPT Francis M. Fota) is being reassigned. First Lieutenant Rodrigo Chavez
will be replacing CPT Fota as Chief, Health Physics Section upon CPT Fota's
departure. First Lieutenant Chavez has been working as a Radiation Safety
Technologist with CPT Fota since 4 November 1996. A request to amend the
license to reflect 1LT Chavez as the Radiation Safety Officer will be
submitted when he has met the one year time requirement specified in Title 10,
Code of Federal Regulations, Part 35.900(b).

4. If you have any questions contact CPT Fota, Chief, Health Physics Section,
DSN 639-5211/6193 or commercial (405) 442-5211/6193.

FOR THE COMMANDER:

Encl

Cynthia A. Jones
CYNTHIA A. JONES
Admin Officer

CF:

U.S. Army Center for Health Promotion and Preventive Medicine
ATTN: MCHB-DS-HP (MAJ SCHNELLE)

PRECEPTOR STATEMENT

Supplement B must be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each.

1. APPLICANT PHYSICIAN'S NAME AND ADDRESS		KEY TO COLUMN C PERSONAL PARTICIPATION SHOULD CONSIST OF: 1-Supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation for prescribed dosage. 2-Collaboration in dose calibration and actual administration of dose to the patient including calculation of the radiation dose, related measurements and plotting of data. 3-Adequate period of training to enable physician to manage radioactive patients and follow patients through diagnosis and/or course of treatment.
FULL NAME		
ROSSOW, Scott		
STREET ADDRESS		
Fitzsimons Army Medical Center		
CITY	STATE	ZIP CODE
Autora	CO	80045-5001

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.) D
I-131 or I-125 or I-123	DIAGNOSIS OF THYROID FUNCTION	54	
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME	10	
	LIVER FUNCTION STUDIES	0	
	FAT ABSORPTION STUDIES	0	
	KIDNEY FUNCTION STUDIES	0	
	IN VITRO STUDIES	143	
Ga67	Whole Body Imaging	70	
In111 or Tc99m	WBC Localization	48	
I-131	THYROID IMAGING	40	
TL-201 Tc-99m	Parathyroid	5	
Tc-99m	Pulmonary Ventilation	11	
In111	CISTERNOGRAPHY	2	
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES	60	
Tc99m	Renal Imaging	140	
Tc-99m	BRAIN IMAGING	9	
	CARDIAC IMAGING	535	
	THYROID IMAGING	84	
	SALIVARY GLAND IMAGING	16	
	BLOOD POOL IMAGING	209	
	Hepatobiliary	72	
	LIVER AND SPLEEN IMAGING	42	
	LUNG IMAGING	82	
	BONE IMAGING	963	
Tc99m	Joint Imaging	9	


PRECEPTOR STATEMENT (Continued)

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN (Continued)

ISOTOPE	CONDITIONS DIAGNOSED OR TREATED	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.)
A	B	C	D
P-32 (Soluble)	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES	0	
P-32 (Colloidal)	INTRACAVITARY TREATMENT	3	
I-131	TREATMENT OF THYROID CARCINOMA	0	
	TREATMENT OF HYPERTHYROIDISM	0	
Sr-89	Treatment of Bone Metastases	0	
Co-60 or Cs-137	INTERSTITIAL TREATMENT	0	
	INTRACAVITARY TREATMENT	0	
I-125 or In-192	INTERSTITIAL TREATMENT	0	
Co-60 or Cs-137	TELETHERAPY TREATMENT	0	
Sr-90	TREATMENT OF EYE DISEASE	0	
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR	1	
Sr-90/ In-113m	GENERATOR	0	
Tc-99m	REAGENT KITS	10	
Other Tc-99m	Esophageal Transit (3), Gastric Emptying (10), Meckel's (4), GI Bleeding (12), Cystograms (14), Testicular (2), Bone Marrow (42) Lung Aspiration (3), Lymphoscintigraphy (2)		
Cr-51	RBC Survival and/or Volume	11	
TL201	Cardiac Imaging	35	

3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

6 months throughout 1 Jul 91 to 30 Jun 95. Successfully completed nuclear medicine as part of diagnostic radiology training program approved by ACCME. This program included classroom and laboratory training, supervised clinical and work experience. Passed written diagnostic and physics boards 1994/5. Oral nuclear med section 1995.

4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:		5. PRECEPTOR'S SIGNATURE	
a. NAME OF SUPERVISOR			
MIKE MC BILES, LTC, MC			
b. NAME OF INSTITUTION		7. PRECEPTOR'S NAME (Please type or print)	
Fitzsimons Army Medical Center		MIKE MC BILES	
c. MAILING ADDRESS		8. DATE	
Nuclear Medicine Svc, Attn: HSHG-RAN			
d. CITY		30 Jun 95	
Aurora, CO 80045-5001			
9. MATERIALS LICENSE NUMBER(S)			
03-00046-13			



DEPARTMENT OF THE ARMY
HEADQUARTERS U.S. ARMY MEDICAL DEPARTMENT ACTIVITY
FORT SILL, OKLAHOMA 73503-6300



REPLY TO
ATTENTION OF:

MCUA-QM

26 AUG 96

MEMORANDUM FOR RPO

SUBJECT: Radiologist credentials

1. The following Radiologists are board certified by the American Board of Radiology with a category of certification of Diagnostic Radiology:

LTC E. Mooney, certified 6/83
holds state license in NE and CO

Dr. J. Geurkink, certified 12/73
holds state license in NE and IL

2. The following Radiologist are not board certified:

MAJ S. Rossow, holds state license in WE
LTC R. Behrmann, holds state license in CO and MI
Dr. A Daron, holds state license in PA

DEBRA MADSEN
Credentials Coordinator



DEPARTMENT OF THE ARMY
HEADQUARTERS U.S. ARMY MEDICAL DEPARTMENT ACTIVITY
FORT SILL, OKLAHOMA 73503-6300



REPLY TO
ATTENTION OF

MCUA-PMR (385-11h)

21 August 1996

MEMORANDUM FOR RACH Quality Improvement Committee

SUBJECT: Minutes of MEDDAC Radiation Control Committee

1. Under the provisions of MR 15-1; Title 10, CFR, Part 35.22; and the Joint Commission on Accreditation of Health Care Organizations (JCAHO), the MEDDAC Radiation Control Committee (RCC) met at 1430, 21 August 1996, in the Commander's Conference Room, Bldg 4300, Reynolds Army Community Hospital (RACH), Fort Sill, Oklahoma.

2. Attendance.

a. Members Present:

LTC Margaret J. Knapp, Deputy Commander for Clinical Services/
Chairperson
LTC Leland L. Jurgensmeier, Representative, Department of Nursing
MAJ Scott Rossow, Representative, Department of Radiology
CPT John B. Brown, Representative, Department of Family
Practice/Community Medicine
CPT Francis M. Fota, Chief, Health Physics Section/Radiation
Protection Officer, Recorder
CW2 William J. Waggner, Chief, Equipment Management Branch
SFC Titus Stokes, Representative, Dental Activity
Dr. Chandrakant Patel, Chief, Nuclear Medicine Service

b. Members Absent: Mr. Guadalupe Gomez, MEDDAC Safety Officer

c. Others Present:

MAJ Mark G. Kortepeter, Chief, Preventive Medicine Activity
MAJ Laurette Chang, Chief, Orthopedic Services
SGT Jeffrey Jennelle, NCOIC, Health Physics Section.

3. Additions/Deletions/Corrections to previous minutes (Enclosure 1). The information reported in paragraph 6a, Radiation Protection Quarterly Report, Radiation Surveys was incorrectly reported: Paragraph 6a(1) - the last quarterly inventory and leak test should have been reported as 28 January 1996. Paragraph 6a(2) - the quarterly linearity check for dose calibrator model CRC 12 should have been reported as 15 February 1996. At this time model CRC 30 was still out for repair. Paragraph 6a(3) - two additional X-ray Equipment Compliance Surveys should be added that were performed in the Department of Radiology. The approval of "Authorized Users" on RACH's U.S. Nuclear Regulatory Commission (USNRC) license should have been listed in paragraph 7 (Issues/Actions Forwarded to the Next Meeting). The Committee unanimously approved of the minutes with the above corrections.

see pg 3

MCUA-PMR

SUBJECT: Minutes of MEDDAC Radiation Control Committee

4. Old Business.

a. Extremity Monitoring for Orthopedic Surgeons: The Committee decided (three meetings ago) that a six month baseline of radiation exposures was needed to determine the need for whole-body, head/neck (eyes), and extremity dose monitoring for the orthopedic surgeons working in the Operating Room. The need for continued monitoring was to be reevaluated at the end of the six month period. The three orthopedic surgeons who are monitored for radiation exposure failed to return their extremity dosimeters on several occasions, making it extremely difficult to obtain a baseline of radiation exposure. Captain Fota informed the committee that six months of exposure data is now available. Exposures to the whole body, head/neck (eyes) and extremities for this six month period were less than 2 percent of the applicable quarterly dose limits. Army regulations (DA PAM 40-18) state that the criteria for assigning dosimeters shall be based upon the occupationally-exposed individual having a reasonable probability of exceeding 10 percent of the applicable occupational dose limits. Since the individuals in surgery have demonstrated exposures far below 10 percent of the applicable dose limits, CPT Fota recommended that dosimetry services are discontinued. LTC Knapp seconded the motion and the Committee unanimously agreed.

RECOMMENDATION: None.

ACTION TAKEN: None required.

EVALUATION: This action is closed.

b. Radioactive Waste Storeroom (Room GE166, BLDG. 4301): An SOP has been written for storage of hazardous materials (both radioactive and non-radioactive) in Room GE166. LTC Knapp suggested at a previous meeting that the store room is surveyed periodically to assure compliance with the new SOP. The Committee had agreed that Mr. Gomez would report the status of monthly fire safety inspections at Committee meetings for a six month period. CPT Fota informed the Committee that no deficiencies were noted during the past six months. Captain Fota suggested that individuals using this storage room have been complying with the new SOP and recommended that any incident of non-compliance is reported to the Committee. The Committee unanimously agreed with this and recommended closing the action.

RECOMMENDATION: None.

ACTION TAKEN: None required.

EVALUATION: Next meeting.

c. Corrections: Annual ALARA and Quality Management Program Review: Captain Fota was tasked at the last meeting to assure changes are made to the MEDDAC and DENTAC in and out-processing checklists and to distribute the last ALARA program review.

MCUA-PMR

SUBJECT: Minutes of MEDDAC Radiation Control Committee

(1) Captain Fota has requested from the Personnel Services NCO at the DENTAC and the Personnel Division of the MEDDAC that the in-processing and out-processing checklists are revised. The revision was necessary to assure that radiation workers in- and out-process through the Health Physics Section. Recommended changes to these checklists were provided as enclosures at the last meeting. The Committee agreed to review the checklists as revised. Captain Fota reviewed the changes with the Committee. The MEDDAC in-processing checklist only reflects occupational health. The in-processing checklist for civilians in the MEDDAC did not reflect either occupational health or health physics. The out-processing checklist for civilian employees in the MEDDAC only reflects occupational health. It is unclear whether the DENTAC has a separate in- and out-processing checklist for civilian employees. LTC Knapp suggested that a referral to Occupational Health may be sufficient if Occupational Health refers radiation workers to the Health Physics Section. The Committee unanimously approved of the following recommendation.

(2) In accordance with the Committee's recommendations, Captain Fota distributed copies of the last ALARA program review to applicable sections.

RECOMMENDATION: Captain Fota will recommend that the in-processing checklist for MEDDAC soldiers and the in- and out-processing checklist for MEDDAC civilians is changed to require radiation workers to report to the Health Physics Section (or to Occupational Health if documentation is available to show that radiation workers are referred to Health Physics). SFC Stokes will determine if the DENTAC has separate in- and out-processing checklists for civilian employees and CPT Fota will recommend changes as necessary.

ACTION TAKEN: Action pending.

EVALUATION: Next meeting.

d. Approval of "Authorized Users" on RACH's U.S. Nuclear Regulatory Commission (USNRC) License:

(1) Major Rossow was unanimously approved by ballot vote to perform: uptake, dilution, excretion, imaging and localization studies IAW Title 10, Code of Federal Regulations (CFR), Parts 35.910 and 35.920. Approval was based upon training, experience and a six month fellowship in clinical Nuclear Medicine procedures.

(2) Captain Fota was tasked to determine the status of the civilian radiologists' privileges under RACH's USNRC license. A memorandum was sent to CPT Fota requesting civilian radiologists are considered for approval to use radioactive materials under RACH's USNRC license. Lieutenant Colonel Randall Behrmann has been an "authorized user" at RACH and was approved by the USNRC when RACH's NRC license was submitted for renewal on 27 January 1987. Based upon this previous approval and documented training and experience the Committee approved Dr. Behrmann to perform uptake, dilution, excretion,

MCUA-PMR

SUBJECT: Minutes of MEDDAC Radiation Control Committee

imaging and localization studies IAW Title 10, CFR, Parts 35.910, and 35.920. Dr. Andrew M. Daron was approved to perform uptake, dilution, excretion, imaging and localization studies IAW Title 10, CFR, Parts 35.910 and 35.920. This approval was based upon Dr. Daron's prior approval to use radioactive materials at Mercy Hospital of Johnstown, Pennsylvania. By virtue of Board Certification in Radiology, Dr. John W. Geurkink was approved to perform uptake, dilution, and excretion studies; imaging and localization studies; and to therapeutically use unsealed byproduct material IAW Title 10, CFR, Parts 35.910, 35.920 and 35.930. LTC Knapp suggested that the Chief Radiology review Dr. Geurkink's therapeutic use of radioactive material. The Committee unanimously approved of the following recommendations.

RECOMMENDATIONS: Approval of LTC Behrmann's use of radioactive materials IAW 10 CFR, parts 35.910 and 35.920. Approval of Dr. Daron's use of radioactive materials IAW 10 CFR, parts 35.910 and 35.920. Approval of Dr. Geurkink's use of radioactive materials IAW 10 CFR, parts 35.910, 35.920. Approval of Dr. Geurkink's therapeutic use of radioactive material IAW 10 CFR, part 35.930 with the provision that the Chief, Radiology review his credentials and define the scope of therapeutic use within the Department of Radiology/Nuclear Medicine. Any limitation of Dr. Geurkink's therapeutic use of radioactive materials would be based on this Committee's approval, his prior training and experience with radiotherapy, the recentness of his training and his Board Certification (scope of practice).

ACTION TAKEN: Approvals as recommended above. Recommendation for Dr. Geurkink's therapeutic use of radionuclides forwarded to MAJ Rossow.

EVALUATION: These actions are closed.

e. Calculation of Worst Case Radiation Dose to a Member of the Public: Captain Fota was tasked to develop a document estimating the worst case radiation dose to a "member of the public" (i.e., a non-radiation worker) from licensed operations at RACH. Captain Fota informed the Committee that he assumed the Nuclear Medicine clinic secretary to have the greatest potential for exposure from licensed operations at RACH. The dosimeter storage area for Nuclear Medicine personnel is within the secretary's office, directly behind the area she occupies for almost all of her 40 hour work week. The monthly and quarterly control dosimeters for this area have not been exposed above their lower limits for radiation detection (approximately 1.1 milliRem). Captain Fota assumed, therefore, that the worst case dose to a member of the public is less than 6 milliRads per year. Captain Fota emphasized that if license conditions or operational procedures change, this estimate may have to be revised. The Committee unanimously approved of using the minutes of this meeting to document the worst case dose to a member of the public and recommended closing this action.

RECOMMENDATION: Place a copy of the minutes for this meeting in the appropriate area of the Health Physics Sections files.

MCUA-PMR

SUBJECT: Minutes of MEDDAC Radiation Control Committee

ACTION TAKEN: None.

EVALUATION: This action is closed.

f. USNRC License Amendment to Use Radioactive Xenon Gas: Captain Fota informed the Committee that MAJ Rossow has decided the use of radioactive Xenon gas for lung perfusion studies is not mission essential. Lung perfusion studies are in almost all cases, adequately performed using aerosolized technetium. Given the design deficiencies discussed at the last meeting for exhausting radioactive gases from the building, and the cost to modify the building to meet regulatory requirements, the Committee unanimously disapproved of using radioactive gases and recommended closing this issue.

RECOMMENDATION: None required.

ACTION TAKEN: None.

EVALUATION: This action is closed.

g. Extremity Monitoring for Orthopedic Surgeons (revisited): Major Chang was invited to attend and arrived late to the meeting. A lengthy discussion occurred regarding the accuracy of extremity monitoring, methods for reducing radiation exposure to the extremities and the hospital's As Low As Reasonably Achievable policy. Major Rossow suggested that leaded glasses and leaded surgical gloves could be purchased if there was a concern for reducing radiation exposure. Captain Fota stated that the procurement of these devices was recommended by the Committee when this issue was originally brought to the Committee's attention. The purchase would, however, have to be made by Orthopedic Services of the Department of Surgery. Major Chang stated that she had previously attempted and could not obtain these items. Major Rossow stated that he could provide appropriate stock numbers for ordering these devices. Lieutenant Colonel Knapp suggested that this issue remain closed and suggested that MAJ Chang obtain the information for purchase of lead protective devices outside the Committee. The Committee unanimously agreed.

RECOMMENDATION: None required.

ACTION TAKEN: None.

EVALUATION: This action is closed.

5. New Business.

a. Extension of USNRC license: Captain Fota informed the Committee that the USNRC has extended RACH's license for a one-time, five year period. Provided as enclosure 2 is a copy of the extension document. After our current license expires, a copy of the license extension needs to be provided to any vendor we intend to purchase radioactive materials from. This item was provided for the Committee's information and did not require a vote.

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RECOMMENDATION: None required.

ACTION TAKEN: None.

EVALUATION: This action is closed.

b. Expiration and renewal of DA Radiation Authorization: Captain Fota informed the Committee that the DA Radiation Authorization that allows RACH to use radioactive materials not governed by the USNRC will expire in December 1996. The renewal application must be received at MEDCOM 60 days prior to expiration. This item was provided for the Committee's information and did not require a vote.

RECOMMENDATION: None required.

ACTION TAKEN: None.

EVALUATION: This action is closed.

c. Survey of Dental X-ray Unit at Pine Bluff Arsenal: Captain Fota informed the Committee that the Health Physics Section plans on performing a survey of the dental X-ray unit at Pine Bluff Arsenal. SPC Stokes suggested that the survey be postponed pending a decision by the DENTAC Commander regarding the continuation of Dental Services at Pine Bluff. Captain Fota agreed to coordinate the survey of this unit with the DENTAC Radiation Protection Officer. This item was provided for the Committee's information and did not require a vote.

RECOMMENDATION: None required.

ACTION TAKEN: None.

EVALUATION: This action is closed.

d. Appointment of New Committee Members: Captain Fota pointed out that new members for the Department of Nursing and Medical Equipment Repair need to be appointed to the Committee. Captain Fota requested Curriculum Vitae (CVs) or résumés are provided for proposed representatives to the Committee. Dr. Brown asked if a CV had been received from CPT Mitchell. Captain Fota did not recall and agreed to follow up at the next meeting. Captain Fota will prepare appointment orders for the new members after the Committee approves of the chosen representatives. The Committee unanimously agreed to discuss these issues at the next meeting.

RECOMMENDATION: Captain Fota will obtain Committee approval for new members, prepare appointment orders and obtain CVs as needed.

ACTION TAKEN: Action pending.

EVALUATION: Next meeting.

e. Use of the Fluoroscan X-ray Unit in Orthopedics/Podiatry: Captain Fota discussed the use of a fluoroscopic X-ray system within the orthopedics and podiatry sections of the MEDDAC. Captain Fota became concerned about the adequacy of written procedures defining when fluoroscopic examinations are warranted after discussing the use of this X-ray system with MAJ Rossow and several individuals within the podiatry section. Although this X-ray system produces very little radiation, the hospital's ALARA policy dictates, and regulatory agencies would expect us to exercise the same care and concern as with other X-ray systems. Captain Fota also mentioned that it would be helpful if the cumulative time that the each patient is examined under the fluoroscope is documented. Several situations could arise that would require the Health Physics Section to calculate the radiation dose a patient received. For example, the inadvertent irradiation of a pregnant female. Calculation of radiation dose is time dependent. Major Rossow asked MAJ Chang if fluoroscopic procedures were performed under the direct supervision of a physician. Major Chang responded in the affirmative. Major Rossow emphasized the importance that regulatory agencies (e.g., the Joint Commission on the Accreditation of Healthcare Organizations) place on uniform standards in the hospital. The Committee unanimously agreed with the following recommendation.

RECOMMENDATION: Written procedures should be established for use of this fluoroscopic X-ray system. These procedures should state: (1) that the fluoroscopic exposure is medically indicated, (2) the exam is performed under the direct supervision of a physician, and (3) the cumulative fluoroscopic exposure time. Fluoroscopic exposure time can be specified or estimated (e.g., 52 seconds, less than 30 seconds, less than two minutes, etc.). Captain Fota will review procedures established by orthopedics and podiatry and report to the Committee.

ACTION TAKEN: Action pending.

EVALUATION: Next meeting.

f. ALARA Investigation: A level of radiation was noted during a weekly survey that exceeded our ALARA trigger level (0.5 millirem/hour) in the Nuclear Medicine Clinic "Hot Lab." An investigation determined that one of the Nuclear Medicine technologists inadvertently placed a radioactively contaminated butterfly needle into this non-radioactive sharps container. A similar incident was apparently resolved at the last meeting. Actions taken to prevent its recurrence have not, however, proven to be successful. Incidents involving this sharps container no longer pose a hazard to the individual who removes the container. This individual must check with the technologist prior to removing the container. A potential radiation exposure hazard exists to the staff, however, if this sharps container becomes contaminated. Should the container become contaminated, Nuclear Medicine Clinic personnel do not have a key to remove it from its wall mount and place

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it in a safe storage area. Captain Fota suggested that Nuclear Medicine personnel obtain a key for the container. This would allow the technologist to remove the sharps container and place it in the radioactive waste holding area until levels of radiation were reduced by decay. The Committee discussed alternatives and unanimously decided to remove this non-radioactive sharps container from the Nuclear Medicine Clinic Hot Lab.

RECOMMENDATION: Remove the non-radioactive sharps container from the Nuclear Medicine Clinic Hot Lab.

ACTION TAKEN: Action Pending.

EVALUATION: Next meeting.

g. Annual ALARA Program Review: Captain Fota graphically compared dosimetry results for calendar years 1994 and 1995 (Enclosure 3). This information is presented in mid-year 1996 because our dosimetry results are typically two quarters behind the current wear period. A review of the Radiation Protection (ALARA) Program by an outside agency is preferable to an internal audit. Captain Fota emphasized the benefit of having a disinterested party perform this review and suggested that the USNRC inspection that occurred in May 1996 could be used as the annual review of our Radiation Protection (ALARA) Program. The Committee reviewed the dosimetry data and noted no significant trends. The Committee unanimously approved of the following recommendation:

RECOMMENDATION: The USNRC inspection of RACH's licensed activities will serve as the annual review of the Radiation Protection Program.

ACTION TAKEN: None.

EVALUATION: This action is closed.

h. Medical Effects of Nuclear Weapons Course: Lieutenant Colonel Knapp mentioned that a centrally funded course on the Medical Effects of Nuclear Weapons would be offered in San Antonio. She inquired whether there was any requirement or recommendation to send personnel to this course. Captain Fota reviewed several accident scenarios that would involve accepting radioactively contaminated casualties into the Emergency Room. Since both MAJ Rossow and CPT Fota have attended this course, CPT Fota suggested that this training would be beneficial for Emergency Room physicians. Lieutenant Colonel Knapp recommended that Family Practice and the Emergency Room send representatives to this course. This issue was discussed for the Committee's information and did not require a vote.

RECOMMENDATION: None required.

ACTION TAKEN: None.

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EVALUATION: This action is closed.

6. Radiation Protection Quarterly Report.

a. Radiation Surveys.

(1) IAW Title 10, CFR, Part 35.59, the last quarterly inventory and leak test of all radioactive sealed sources held by USAMEDDAC, Fort Sill, OK, was conducted on 2 May 1996. All sources were accounted for and no unacceptable levels of removable contamination were detected.

(2) IAW Title 10, CFR, Part 35.50, the quarterly linearity checks for the dose calibrators (Models CRC 12 and CRC 30) in the Nuclear Medicine Clinic, building 4301 were performed on 7 May 1996. Results for both Models were in compliance with NRC standards. Model CRC 30 has been returned from the manufacturer after repair and has passed constancy, linearity, geometry and accuracy tests.

(3) During January - March 1996, X-ray equipment compliance surveys were performed at the following sites: Three surveys were performed at the Cowan Dental Clinic, two surveys at the Fort Chaffee Dental Clinic, one survey at the McAlester Army Ammunition Plant, and one survey at Pine Bluff Arsenal.

(4) Thirteen documented weekly area contamination surveys were performed during January - March 1996 in the Nuclear Medicine Clinic. One survey showed an unusual contamination level. In this case, the contamination level was slightly above regulatory limits. The area was decontaminated to acceptable levels. No resurvey was necessary.

b. Radiation Safety Training. IAW Title 10, Part 19.12, annual radiation safety training is required. During January - March 1996 radiation safety training was provided to Facilities Management (housekeeping).

c. Dosimetry Services Program. There were 86 individuals wearing TLD whole body dosimeters, 14 issued extremity ring dosimeters, and 28 assigned thyroid/eye collar dosimeters during the 1st calendar quarter 1996.

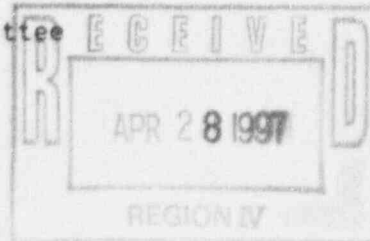
d. ALARA Exposure Review: The 1st calendar quarter (1996) dosimetry results for radiation workers at the MEDDAC/DENTAC, Fort Sill, Oklahoma were reviewed by the Committee (Enclosure 4). No significant exposure trends were noted. Individual, collective, and average radiation exposures were determined to be As Low As Reasonably Achievable.

7. Issues/Actions Forwarded to the Next Meeting.

a. Changes to the in- and out-processing checklist for the MEDDAC/DENTAC.

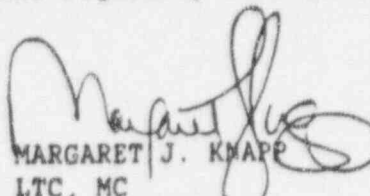
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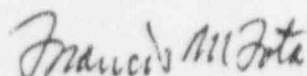
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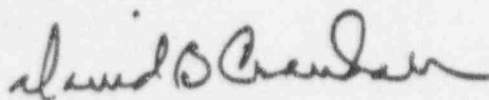
- b. USNRC unannounced inspection.
 - c. Appointment of new Committee members.
 - d. Use of the Fluoroscan X-ray unit in Orthopedics/Podiatry.
 - e. Removal of non-radioactive sharps container from the Nuclear Medicine Clinic Hot Lab.
8. Issues/Actions Referred to the Quality Improvement Committee: None.
9. Adjournment. The meeting adjourned at 1535. NOTE: The next RCC meeting is scheduled for 20 November 1996, 1330, Bldg. 4300, Commander's Conference Room. This is one hour earlier than the regularly scheduled meeting.

4 Encls


MARGARET J. KNAPP
LTC, MC
DCCS/Chairperson


FRANCIS M. POTA
CPT, MS
RPO/Recorder

APPROVED:


DAVID B. CRANDALL
COL, MC
Commanding