

DEPARTMENT OF THE ARMY
Medical Department Activity
Fort Huachuca, Arizona 85613-7079

MEDDAC MEMORANDUM
No. 385-3

16 August 2006

Safety

THE MEDDAC/DENTAC/VET RADIATION PROTECTION PROGRAM

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1. HISTORY. This is a revision of this publication.

2. PURPOSE. To establish a program for and responsibilities in the MEDDAC/DENTAC/VET Services Radiation Protection Program. To ensure that the "As Low As Reasonably Achievable" (ALARA) principal is followed and the procurement, use, and storage of Radiation producing devices within the MEDDAC/DENTAC/VET Services are in conformance with pertinent radiation protection standards.

3. SCOPE. This memorandum applies to all personnel assigned or attached to the MEDDAC/DENTAC/VET SERVICES at Fort Huachuca, AZ.

4. REFERENCES.
 - 4.1 AR 11-9, Army Radiation Safety Program.
 - 4.2 AR 40-5 Preventive Medicine.

* This Memorandum Supersedes MEDDAC Memo 385-3, Dtd 13 Sep 2004

4.3 DA Pamphlet 40-18, Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation.

4.4 MEDCOM Reg 40-42, U.S. Army Medical Command Radiation Safety Program

4.5 TB MED 521, Occupational and Environmental Health Management and Control of Diagnostic, Therapeutic, and Medical Research X-ray Systems and Facilities.

4.6 10 CFR, Part 20.

4.7 Nuclear Regulatory Commission (NRC) Guide 8.13, Instructions Concerning Prenatal Radiation Exposure.

4.8 NRC Guide 8.29, Instruction Concerning Risk from Occupational Radiation Exposure.

5. RESPONSIBILITIES.

5.1 The Commander will:

5.1.1 Administer the Radiation Safety Program within RWBAHC and supported activities.

5.1.2 Ensure that RWBAHC possesses the necessary NRC license and Army Radiation Authorization for the possession and use of machine-produced radiation.

5.1.3 Provide adequate support for the medical use of ionizing radiation to include:

5.1.3.1 Accommodations for the clinical care of patients.

5.1.3.2 Availability of suitably trained and experienced personnel.

5.1.3.3 Availability of essential equipment such as handling devices, shields, ionizing radiation measuring and monitoring instruments, and radiation safety related publications.

5.1.3.4 An approved, current, written radiation safety program for the protection of personnel and the health and safety aspects of the use of ionizing radiation (this memorandum).

5.1.4 Appoint in writing a Radiation Protection Officer (RPO) whose primary duties are to monitor and manage the radiation protection program. This person will attend a 40 hour Basic Radiation Protection Officers Course either locally or through the Center for Health Promotion and Preventive Medicine (CHPPM) as soon as possible per regulation guidelines.

5.1.5 When a civilian is appointed RPO, ensure the civilian job description is modified to reflect the additional duty of RPO.

5.1.6 Appoint an Assistant Radiation Protection Officer (ARPO), usually the NCOIC, of the Radiology Clinic.

5.1.7 Appoint the Personnel Dosimetry Custodian who will be responsible for maintaining DD Form 1141 (Dosimeter Application) and DD Form 1952 (Record of Occupational Radiation Exposure) for all MEDDAC, DENTAC and VET SERVICES film badge wearers.

5.1.8 Ensure adequate time is allowed to perform duties.

5.1.9 Provide funding for the operation of the Radiation Protection Program.

5.2 The RPO will:

5.2.1 Exercise staff supervision of the overall Radiation Protection Program.

5.2.2 Coordinate and supervise the Personnel Radiation Dosimetry Protection Monitoring Program to include the issuance and exchange of Thermo-luminescent Dosimeters (TLD), maintenance of Automated Dosimetry Records (ADR), and notifying individuals and their supervisors of exposures approaching the maximum permissible amounts, investigate excessive exposures and overexposure.

5.2.3 Advise the Commander, staff, other activity RPOs and radiation workers in all matters pertaining to radiation protection standards and criteria.

5.2.4 Review all written radiation protection standing operating procedures (SOPs) within the MEDDAC/DENTAC/VET SERVICES for accuracy at least annually.

- 5.2.5 Ensure the maintenance of a current inventory of all sources of radiation for the MEDDAC/DENTAC/VET SERVICES. The inventory will be maintained in Medical Maintenance.
- 5.2.6 Perform radiation protection program evaluations of diagnostic X-ray facilities to ensure conformance with pertinent standards.
- 5.2.7 Provide quarterly reviews of personnel dosimetry records and routine surveillance of the dosimetry program.
- 5.2.8 Designate in writing TLD storage locations.
- 5.2.9 Notify the Occupational Health Nurse (OHN) of any occupational radiation exposure approaching 1/2 of the permissible exposure limit.(See para 9.2.4)
- 5.2.10 Review declared pregnant workers exposure history with them and discuss probable exposure during pregnancy. See NRC Guide 8.13 and complete documentation in Appendix B.
- 5.2.11 Coordinate radiation protection surveys of all equipment by a qualified Health Physicist at least annually. Fluoroscopic and mammographic systems will be surveyed annually.
- 5.2.12 Ensure occupationally exposed individuals receive initial and annual training concerning radiation protection practices, the biological effects of ionizing radiation, and the risks of radiation exposure. Specifically, training shall be provided for the following individuals:
- 5.2.12.1 Radiologists and other physician users.
 - 5.2.12.2 X-ray technologist and technicians.
 - 5.2.12.3 Medical equipment maintenance personnel.
 - 5.2.12.4 Others determined to be occupationally exposed to ionizing radiation.
- 5.2.13 Ensure each individual signs a statement acknowledging receipt of the training (DD Form 1952). All training records shall be maintained in the employee's competency assessment folder (CAF)

5.2.14 Maintain records of radiation protection and QA surveys of all X-ray systems and documentation of the completion of any corrective actions for at least 3 years.

5.2.15 Review the purchase orders for all diagnostic and therapeutic devices.

5.3 The Noncommissioned Officer in Charge (NCOIC), Radiology Services will:

5.3.1 Be designated in writing as the ARPO and assist the primary RPO, serving as the RPO in his/her absence.

5.3.2 Be responsible for the issuance, retrieval, and shipment of film badges for MEDDAC/DENTAC/VET SERVICES and forwarding the film badge reports in a timely manner to the primary RPO for review.

5.3.3 Establish a quarterly exchange period of film badges for user Clinics. Local mail and distribution will not be used for exchanging film badges.

5.3.4 Initiate a DD Form 1952 on all MEDDAC film badge wearers required to be on the Photo-dosimetry Program. A copy will be provided to the MEDDAC Medical Records Custodian.

5.3.5 Notify the designated personnel dosimetry custodian and/or MEDDAC RPO when film badge wearers are removed from the Radiation Protection Program for any reason.

5.3.6 Supervise the "As Low As Reasonably Achievable" (ALARA) Program for the Department of Radiology.

5.3.7 Supervise the Quality Assurance Program for the Department of Radiology.

5.3.8 Ensure declared pregnant radiation workers receive a copy of NRC Guide 8.13.

5.3.9 Ensure employee(s) sign Memorandum for Record (see sample Appendix C) and coordinate with RPO to review employee(s) exposure history.

5.4 Deputy Commander for Clinical Services; Commander, Veterinary Services, Commander, USA DENTAC, Chief, Biomedical Maintenance; and Chief, Department Ancillary Services have the responsibility to ensure that all personnel within their area of control comply with the provisions of this program in accordance (IAW) AR 11-9, including their personal protection, dosimetry and protection of patients.

5.5 Chief, Logistics will:

5.5.1 Develop and implement procedures to ensure the GPRMC (Great Plains Regional Medical Command) RPO is consulted prior to the construction or renovation of areas that contain Ionizing Radiation producing equipment.

5.5.2 Coordinate/consult with the GPRMC RPO prior to the purchase or transfer of equipment capable of producing ionizing radiation.

5.5.3 Ensure all Radiation producing equipment is calibrated annually by Clinical Engineering Branch(CEB), and surveyed by GPRMC Health Physicist at least every two years (annual for mammographic and fluoroscopic systems).

5.5.4 Maintain an inventory of all Ionizing & Non Ionizing Radiation producing equipment (in CEB).

5.5.5 Maintain a completed copy of the FDA Form 2579 (Report of Assembly of a Diagnostic X-Ray System) for each X-Ray machine.

5.5.6 Maintain copies of all radiation protection surveys and corrective measure taken for each surveyed unit in the MEDDAC/DENTAC/VET SERVICES.

5.5.7 Responsible for providing to the RPO, upon request, a listing of all items of equipment which produce ionizing radiation or hazardous non-ionizing radiation (microwaves or radio frequency energy), and for notifying the RPO whenever any items are removed, replaced or when any additional equipment is added.

5.6 Chief, Preventive Medicine, Wellness and Readiness Services (PMWARS) will:

5.6.1 Provide medical surveillance for all radiation workers and ensure all results are filed in personal medical records.

5.6.2 Ensure the Occupational Health Physician completes their portion of Memorandum for Record see Appendix C and forwards it to NCOIC, Radiology.

5.7 The DENTAC Commander will designate, in writing a DENTAC RPO.

5.7.1 The DENTAC RPO will:

5.7.1.1 Exercise staff and operational supervision of clinical radiology and the radiation protection program within the DENTAC IAW AR 11-9.

5.7.1.2 Shall initiate a DD Form 1952 on all DENTAC personnel required to be on the Radiation Protection Program. Completed forms are to be forwarded to the MEDDAC Medical Records Custodian.

5.8 The VET SERVICES Commander will designate in writing a VET SERVICES RPO.

5.8.1 The VET SERVICES RPO will:

5.8.1.1 Exercise staff and operational supervision of clinical radiology and the radiation protection program within the VET Services.

5.8.1.2 Shall initiate a DD Form 1952 on all VET Services personnel required to be on the Radiation Protection Program. A copy will be forwarded to the MEDDAC Medical Record Custodian.

5.8.1.3 Shall notify the MEDDAC RPO when VET SERVICES personnel are removed from the Radiation Protection Program for any reason.

5.9 Chief, Patient Administration Division (PAD) will ensure:

5.9.1 An OF 23, Charge Out Record, stating where the DD Form 1141 is kept, is placed in the health record of all film badge wearers.

5.9.2 Ensure ADR's are filed in military and civilian radiation workers medical records.

5.9.3 Process all requests for radiation exposure history received from other medical treatment facilities.

5.9.4 When a film badge wearer PCSs (Permanent Change of Station), ETSs (Expiration Term of Service), or retires, the DD Form 1141 is placed in the person's health record before the service member or civilian employee is cleared through PAD.

5.10 Supervisors of areas with radiation workers will:

5.10.1 Appoint a person to coordinate the exchange of TLD's.

5.10.2 Ensure all radiation workers attend annual required radiation protection training.

5.10.3 Ensure that newly assigned personnel identified as being required to be on the Radiation Protection Program, have initiated DD Form 1952 and have a scheduled appointment for medical surveillance with Occupational Health. Medical surveillance appointments should be made during in processing or as soon as the individual is required to be on the Radiation Protection Program.

5.10.4 Refer declared pregnant radiation worker(s) to the RPO, when a worker reports a suspected pregnancy.

5.10.5 Promulgate, supervise, and enforce radiation safety procedures.

5.10.6 Ensure that personnel who PCS, ETS, retire, resign, or transfer to another occupational position, outprocess through the RPO.

5.11 The Radiation Protection Program Records Custodian will:

5.11.1 Prepare (for newly assigned personnel) a DD Form 1952 (Dosimeter Application and Record of Occupational Radiation Exposure) in strict conformance with AR 11-9 and the instructions on the reverse side of the form.

- 5.11.2 Ensure TLD's are exchanged in a timely manner.
 - 5.11.3 Forward ADR's to MEDDAC RPO for quarterly review.
 - 5.11.4 Forward ADR's to appropriate medical records custodian (PAD for military and civilians) for inclusion in personnel medical record.
 - 5.11.5 Forward reports of outside exposure to the custodians at Redstone Arsenal, AL.
 - 5.11.6 Maintain forwarding address for all assigned radiation workers for one year after PCS or ETS.
 - 5.11.7 Ensure individual ADR's are placed in their medical records prior to final clearance from MEDDAC/DENTAC/VET SERVICES or kept on file until all the results are received from the Dosimetry Center at Redstone Arsenal, AL and then forwarded for placement in their personal medical records.
 - 5.11.8 Forward all records (Declaration of Pregnancy, Training Statement and Radiological Work Recommendations) of pregnant worker to appropriate medical records custodian.
- 5.12 Radiation Workers will:
- 5.12.1 Take necessary precautionary measures to protect their self and others from unwarranted exposures to radiation.
 - 5.12.2 Wear personal monitoring devices (TLD's, ring badge) when working in radiation area.
 - 5.12.3 Report any accident or unusual incident to the supervisor and/or RPO as soon as possible after the occurrence.
 - 5.12.4 Use radiation equipment/sources in accordance with the provisions of this memorandum, and other pertinent standards.
 - 5.12.5 Furnish the records custodian with a report of any outside exposure to ionizing radiation (from outside work) at least quarterly.

5.12.6 When voluntarily declaring their pregnancy, complete Form Letter For Radiation Worker Pregnancy Declaration (see Appendix A) (printed on a SF Form 600) and forward it to RPO.

5.12.7 Give Occupational Health Physician Radiological Occupational Job Recommendations (see Appendix B).

5.12.8 Attend all radiation safety training instruction as directed by his/her immediate supervisor.

5.12.9 When required, hand-carry DD Form 1952 and medical records to scheduled medical surveillance at Occupational Health.

6. PROCEDURES:

6.1 Personnel Dosimetry.

6.1.1 All personnel assigned or attached to USA MEDDAC or USA Veterinary Command who are routinely exposed to sources of ionizing radiation as a condition of their employment shall be monitored with a film badge.

6.1.2 The NCOIC, Department of Radiology or Veterinary film badge coordinator will ensure that personnel monitoring devices are issued and used when indicated and that required records are maintained.

6.1.3 Each activity receiving TLD service will designate a unit TLD Coordinator. This person will assist the Radiation Protection Program's Records Custodian or his designee in the issue, exchange and collection of TLD's. A defined area for temporary storage of film badges shall be designated by the Film Badge Coordinator and approved by the RPO.

6.1.4 Request for film badge service shall be initiated on a DD Form 1952. The NCOIC, Radiology and/or Film Badge Coordinator will ensure that all requested information is documented and the form is properly signed.

6.1.5 TLD's will be exchanged on a quarterly basis in accordance with the schedule provided by Dosimetry Center Redstone Arsenal, AL.

6.1.6 To prevent damage or loss to the TLD, and to make the TLD readily accessible to personnel and the RPO, off duty personnel will leave their TLD's on the TLD Control Board at the work facility.

6.1.7 The TLD will be worn at all times while working in the Radiation Control area. It will be worn attached to an outer garment between the shoulders and hips, preferably at the level of the sternum.

6.1.8 When wearing protective devices such as aprons, gloves etc., the TLD will be worn outside the protective device, attached to an outer garment in the neck area.

6.1.9 TLD's shall not be used for any purpose other than personnel monitoring.

6.1.10 MEDDAC/DENTAC/VET Services personnel will not wear TLD's when outside the MEDDAC/DENTAC/VET Services work area. When military or civilian personnel assigned or attached to MEDDAC, DENTAC, VET Services are exposed to ionizing radiation at an installation outside of the jurisdiction of MEDDAC, they shall ensure the radiation records custodian is provided with a record of the outside work exposure at least quarterly.

6.1.11 Administrative doses will be assigned IAW DA PAM 40-18.

7. MEDICAL SURVEILLANCE OF OCCUPATIONALLY EXPOSED PERSONNEL.

7.1 This section is applicable to all personnel classified as radiation workers, i.e. those who are issued TLD's by the Radiology Department.

7.2 All personnel assigned to any MEDDAC, DENTAC or Veterinary Services where ionizing radiation is used will in-process through the Occupational Health Section prior to beginning work.

7.3 Regulations and local medical authority will determine frequency and content of medical examinations. The local medical authority will render the decision as to the acceptability of the individual into the Radiation Program.

7.4 Supervisors of radiation workers will notify the Occupational Health Section (OHS) of incoming or outgoing personnel.

8. RADIATION PROTECTION SURVEYS.

8.1 A radiation protection survey is defined as the evaluation of the radiation hazards in and around a radiation facility. It customarily includes inspection of the equipment, its location, and measurement of exposure levels arising from the operation of the equipment.

8.2 The RPO shall ensure a radiation protection survey of all new or modified X-ray and gamma beam therapy installations is performed prior to their routine use. A qualified Health Physicist will perform this survey.

8.3 A radiation protection survey shall be conducted of existing installations annually by a qualified Health Physicist. This is to ascertain the equipment, structural shielding and operating procedures are in accordance with pertinent directives, standards and guides. The MEDDAC Clinical Engineering Branch will inspect the equipment at least annually and assist the Health Physicist during surveys.

8.4 A written report of the results from the Health Physicist survey shall be furnished to the MEDDAC RPO who will provide a copy to C, Logistics Medical Maintenance Division.

9. RADIATION SAFETY STANDARDS.

9.1 Exposure Control

9.1.1 Occupational exposure to ionizing radiation is exposure incurred as a result of an individual's employment or duties, which are in direct support of the use of radioactive materials or machinery capable of producing ionizing radiation.

9.1.2 Every effort shall be made to maintain radiation doses "as low as reasonably achievable"(ALARA principal). Positive efforts shall be carried out to fulfill this principal.

9.1.3 Proper radiation safety standards will be practiced by all radiation workers at all times in accordance with TB MED 521 and appropriate clinic policies.

9.1.4 Appropriate and effective Gonadal Shielding will be utilized on patients who have reasonable reproductive potential, particularly when the gonads are within the primary beam or

within 2 inches of the beam edge. Unless such devices interfere with the conditions or clinical objectives of the exam or treatment (TB MED 521).

9.1.6 All persons remaining in the area of secondary radiation will wear a protective lead apron. The exposure to the patient shall be kept to a practical minimum consistent with clinical objectives by using only the approved techniques posted in each exposure room.

9.1.7 The primary beam should be limited to the smallest area practicable and consistent with radiological exam or treatment.

9.1.8 Protection of embryo or fetus during radiological examination of women known to be or suspected of being pregnant should be given special consideration. X-Ray technologist will always ask patients of childbearing age if they think they may be pregnant.

9.1.8.1 The X-ray referral slip will contain information indicating whether the patient is, is not, or may be pregnant. The Radiologist will be notified if a patient thinks they may be pregnant.

9.1.8.2 This information will be provided by the attending/referring physician for radiologic examinations of the abdominal area on women of childbearing age.

9.1.8.3 Where possible, the attending/referring physician should consult with a radiologist concerning radiologic examinations on women known or suspected of being pregnant.

9.1.8.4 Modification of a radiologic procedure for patient dose reduction is warranted only if it can be performed without significant jeopardy to the medical care of the patient or the embryo-fetus.

9.1.8.5 No radiologic procedures for which there is significant medical need should be denied a patient, even if pregnant. The risk to the patient of not having an indicated examination is also an indirect health risk to the embryo-fetus.

9.1.8.6 All suspected pregnancies will be confirmed by serum HCG or ultrasound examination before a radiological exam is performed.

9.1.8.7 When an exam is performed, a high KVP-low MAS technique will be used in conjunction with proper shielding and collimation techniques in order to safeguard the fetus.

9.1.8.8 Fluoroscopy shall not be used as a substitute for radiography, but should be reserved for the study of dynamic or spatial relationships or for guidance in spot film recording of critical details (TB MED 521).

9.1.8.9 All doors to the X-ray room that open into uncontrolled areas shall be closed during radiographic and/or fluorographic procedures.

9.1.8.10 All radiographic protective devices (i.e. apron, gloves, and gonadal shields) will be fluoroscopically inspected by a Quality Control Technologist semi-annually to determine serviceability.

9.1.8.11 During portable radiography, the operator should use the maximum Source to Image Distance (SID), which should be at least 15". A SID of less than 12" shall not be used except for specific surgical applications where SID shall not be less than 8" (TB MED 521).

9.1.8.12 The radiographer shall stand as far as practicable (at least 6 ft) from the patient, the X-ray tube, and the useful beam. He shall wear a protective apron of at least 0.25 mm lead equivalent or stand behind a protective barrier having at least the same lead equivalence. The whole body film badge shall be worn on the outside of the protective apron on the collar (TB MED 521).

9.1.8.13 It is the responsibility of the person in charge of the radiation sources to ensure that only individuals competent to use it safely operate the device. They are also responsible for promulgating rules for working safely, including any restrictions in operating techniques and restrictions required to assure safe use of such devices.

9.1.8.14 The specified limit for an individual in the population at large or a non-radiation worker is 0.1 rem/whole body dose, in any calendar year.

9.1.8.15 Under no circumstances will any person occupationally exposed to ionizing radiation be permitted to hold patients

during exposures, nor shall any person be regularly used for this service (TB MED 521).

9.1.8.16 Authorization to Order Radiographic Examinations (X-Rays). The commander has authorized the following individuals to order radiographic examinations: physicians, PAs, nurse practitioners, physical therapists and the occupational health nurse.

9.2. Dose Limits.

9.2.1 In accordance with the provisions of 10 CFR, Part 20 Occupational Dose Limits, occupationally exposed individual dose limit shall be the more limiting of:

9.2.1.1 The total effective dose equivalent (TEDE) being 5 rem.

9.2.1.2 The sum of deep-dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being 50rem.

9.2.1.3 The annual limit to the lens of the eye being 15 rem.

9.2.1.4 The shallow dose equivalent to the skin or any extremity is 50 rem.

9.2.2 The specified limit for an individual in the population at large or a non-radiation worker is 0.1 rem whole body dose, in any calendar year. No individual under 18 years of age, shall be exposed to ionizing radiation in excess of any individual in the population at large (0.1rem/year).

9.2.3 When it's known or suspected that an individual has received a radiation dose in excess of the limits listed above the RPO shall investigate the circumstances of the over exposure. A report of investigation of the overexposure and corrective action taken shall be submitted to the Surgeon General, DA, in accordance with AR 40-5.

9.2.4 Investigational Levels-millirem per quarter:

	Level I	Level II
Total Effective Dose Equivalent Sum of Deep Dose and Committed Dose Equivalent	125	375
Lens of the eye	375	1125
Skin of the whole body; Shallow; Extremities	1250	3750

9.2.4.1 Quarterly Dose Equal to or Greater than Level I, but less than Level II. The RPO will review the dose of each individual and investigate the cause of an exposure in a timely manner and, if warranted, take immediate action to prevent further exposure. The RPO will report the results of the review at the next Safety Committee meeting.

9.2.4.2 Quarterly Dose Equal to or exceeds Level II. The RPO will investigate the cause of the exposure in a timely manner and, if warranted, take immediate action to prevent additional exposure. The RPO will report findings to the Safety Committee at the next meeting.

10. DENTAL RADIATION SAFETY STANDARDS.

10.1 Particular care shall be taken to align accurately the useful beam with patient and film. Neither the base housing nor the position indicating device (PID) shall be handled during exposures.

10.2 Every patient will wear a protective apron. Thyroid shielding should be used for the patient when appropriate. Shielding shall not be a substitute for adequate beam collimation and alignment.

10.3 The peak tube potential use in routine dental radiography shall not be less than 65KVP. Both bite-wing and periapical dental projections should be performed at a peak tube potential of 80KVP or higher to reduce the exposure-at-the skin entrance, if the resulting image quality provides the required diagnostic information.

10.4 Open-end shielding position-indicating devices should be used with the paralleling technique to perform routine intra-oral radiography and should restrict the X-ray beam to as near the size of the image receptor as possible.

11. VETERINARY RADIATION STANDARDS.

11.1 Sandbags, V-trough, slings, or other appropriate ancillary devices should be used to assist in positioning animals for radiographic procedures. Mechanical devices should be used to hold/position cassettes during radiographic procedures of large animals. General anesthesia, sedation, or tranquilizers should be used on animals if necessary, to facilitate radiography or fluoroscopy with minimal human exposure.

11.2 No part of the animal handler's body shall be placed in the useful beam without adequate protection. Protective aprons and gloves shall be worn during radiologic procedures that require holding an animal.

11.3 A log or equivalent record of the use of the X-ray systems shall be maintained to indicate the data of exposure, peak tube potential Kilovolt Peak (KVP), animal and any persons used to hold the animal during radiologic procedures.

12. PROCUREMENT, USE, STORAGE, AND DISPOSAL OF RADIOACTIVE MATERIAL/RADIATION PRODUCING DEVICES.

12.1 The RPO will be notified of all requests for diagnostic or therapeutic X-ray or gamma-beam equipment. The RPO will be in the review chain for the procurement of radiation equipment.

12.2 The use of and storage of radiation producing devices will be confined to areas approved by the Commander and/or RPO.

13. POSTING OF RADIATION AREAS AND X-RAY GENERATING EQUIPMENT.

13.1 The areas in which radiation producing devices or materials are used and/or stored will be posted IAW AR 11-9.

13.2 These areas will be secured from unauthorized entry.

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13.3 All devices and equipment capable of producing X-rays shall be appropriately posted. The sign shall be placed on the control panel near the ON/OFF switch.

The proponent for this memorandum is the MEDDAC Safety Office. Users are invited to send comments and suggested improvements on DA Form 2028 directly to Commander USA MEDDAC Fort Huachuca, Arizona 85613-7079 ATTN: MCXJ-DCA-SO.

FOR THE COMMANDER:

OFFICIAL:

GREGORY A. SWANSON
MAJ, MS
Deputy Commander
for Administration

ROBERT D. LAKE
Information Management Officer

DISTRIBUTION: B

APPENDIX A

MCXJ-DCA-SAF

DATE

MEMORANDUM FOR MEDICAL RECORD

SUBJECT: Form Letter for Radiation Worker Pregnancy Declaration

1. This form letter is provided to aid the pregnant radiation worker in voluntarily declaring their pregnancy. The pregnant radiation worker can fill in the blanks or write their own letter.

DECLARATION OF PREGNANCY

To:

(Name of employee supervisor or employer representative)

I am voluntarily declaring that I am pregnant. I believe I became pregnant _____ , _____ (only the month and year are required).

I understand that by declaring my pregnancy, my occupational exposure to ionizing radiation will not be allowed to exceed 0.05 rem (5 milisieverts unless that dose has already been exceeded prior to submitting this declaration). I also understand that meeting the lower dose limit may require a change in job or job responsibilities during my pregnancy.

If I learn that I am not pregnant, or if my pregnancy is terminated, I will promptly inform my employer or their representative in writing.

(Employee Signature)

(Employee Name Printed)

(Date)

APPENDIX B

MCXJ-DCA-SAF

DATE

MEMORANDUM FOR RECORD

SUBJECT: Radiological Occupational Job Recommendations

1. Name _____, SSN: _____, has been identified as a pregnant radiation worker.

2. Workplace: Radiology Clinic/DENTAC/Vet Services
(Circle appropriate Section/s)

3. The following restrictions apply to this individual: (Check appropriate section)

___ No Fluoroscopic Procedures

___ No Special Radiographic Procedures: Angiogram, Cardiac Cath

___ No Portable X-Ray Procedures

___ No General purpose X-Ray Procedures

___ No holding Patients

___ Other (Specify)

4. An evaluation of the above employee exposure history has been conducted by the RPO, Occupational Health Physician, and the employees OB/GYN physician. The occupational radiation exposure during the gestation period must not exceed 0.05 rem (10 CFR, Part 20).

5. I understand these are recommendations and that when my supervisor deems it mission essential, I may be utilized temporarily in any of the above procedures.

Occupational Health Physician

OB/GYN Physician

Supervisor

Employee

APPENDIX C

MCXJ-DCA-SAF

DATE

MEMORANDUM FOR RECORD

SUBJECT: Radiation Training Statement, RPO Statement, and Physician Approval

1. Radiation Training Statement

I acknowledge having received a copy of the U.S. Nuclear Regulatory Commission Regulatory Guide 8.13 concerning the possible effects of prenatal radiation exposure. I have been counseled by the Radiation Protection Officer concerning my exposure history, and potential for exposure during my pregnancy.

Printed Name: _____

SSN:

Signature: _____

Date:

2. RPO Statement

I have reviewed the proposed work situation of the above employee. I have determined that her probable radiation dose during the pregnancy term will be ____ millirems or less. This compared with the 0.5 rem limit stated in 10 CFR Part 20.

Printed Name:

Signature: _____

Date:

3. Physician Approval for continued work in radiation area.

I am aware of the position held by the pregnant employee above. I have reviewed her medical record, automated DD Form 1141 (ADR record of occupational exposure to ionizing radiation), and job restriction memorandum. I find no reason and have no objection to her continued work in a radiation area.

DATE

OB/GYN Physician

DATE

Occupation Health Physician

Instructions:

Employees may notify their supervisor as soon as they suspect they may be pregnant.

Employees may notify the Radiation Protection Officer of their pregnancy.

Employees may make an appointment with the Occupational Health Physician, Phone number 533-9039.

Employee's need to bring a copy of their OB/GYN and Medical records to the Occupational Health Physician.

The MFR's will be printed onto a SF 600 so that they may be placed into the personnel's permanent medical records.

An employee's declaration of pregnancy is completely voluntary. However if the employee fails to declare their pregnancy in writing, they will be monitored under the standard occupational radiation dose limits for all radiation workers.