1. Keywords

EXPOSURE

FACILITIES

FILM BADGE

HAZINV

INSTR CAL 0303

IONIZING RADIATION DETECTION AND MEASUREMENT

MEDREC

NRC LICENSED RADIOISOTOPE

PREVENTIVE AND PROTECTIVE PROGRAM

RADIATION PROTECTION 1604

RADIOACTIVE MATERIAL STORAGE

RADIOGRAPHIC X-RAY EQUIPMENT

2. Start Date: FY 85 Quarter 3 End Date: FY 85 Quarter 3

- 3. HQ Division: 43 HEALTH PHYSICS DIVISION
- 4. Phase:
- 5. Program NO: 28
- 6. Survey Type: RS INDUSTRIAL RADIATION SURVEY
- 7. INSTALLATION OR SOURCE OF INFORMATION (CITY & STATE OR COUNTY ARE ESSENTIAL)

HS - USA HEALTH SERVICES COMMAND

- 8. Authors:
- 9. ARLOC/Activity: 11933 001 WALTER REED AMC

Location: WASHINGTON

State: DC

- 10. Project Control Number: 43-0800-85
- 11. Title: HLTH HAZ/IONIZING RADIATION SCS
- 12. DSA: 61



DEPARTMENT OF THE ARMY U.S. ARMY ENVIRONMENTAL HYGIENE AGENCY

CPT Russell/mfb/AUTOVON 584-3502

ABERDEEN PROVING GROUND, MARYLAND 21010-5422

REPLY TO ATTENTION OF

HSHB-RH

9 1 JUN 1985

SUBJECT:

Radiation Protection Survey No. 28-43-0800-85, Walter Reed Army

Medical Center/US Army Dental Activity, Washington, DC,

9-19 April 1985

Commander US Army Health Services Command ATTN: HSCL-P Fort Sam Houston, TX 78234-6000

AUTHORITY. 1st Ind, HQ HSC, HSCL-P, 24 September 1984, to letter, USAEHA, HSHB-E/WP, 24 August 1984, subject: USAEHA Mission Services, FY 85.

2. REFERENCES.

- a. AR 40-14, 15 March 1982, Control and Recording Procedures for Exposure to Ionizing Radiation and Radioactive Materials.
- b. AR 40-37, 7 January 1977, Licensing and Control of Radioactive Materials for Medical Purposes.
- c. Title 10, Code of Federal Regulations (CFR), 1984 rev, Part 20. Standards for Protection Against Radiation.
- d. Accreditation Manual for Hospitals, Joint Commission on Accreditation of Hospitals (JCAH), 1985 Edition.
- PURPOSE. This survey was performed to determine the presence and extent of any health hazards resulting from the use of ionizing radiation sources at Walter Reed Army Medical Center/US Army Dental Activity (WRAMC/DENTAC), Washington, DC. Further, it was performed to evaluate the overall radiation protection program established for conformance with current directives for radiation protection.

Distribution limited to US Government agencies only: protection of privileged information evaluating another command; May 85. Requests for this document must be referred to Commander, US Army Health Services Command. ATTN: HSCL-P, Fort Sam Houston, TX 78234-6000.

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4. GENERAL.

- a. This survey was performed concurrently with the HSC-IG General Inspection. This report does not include HSC-IG findings which are included in the HSC-IG report marked "For Official Use Only" and on file in the HSC-IG office.
- b. An entrance interview and exit briefing for WRAMC, to include a discussion of the findings and recommendations, were held with MG Louis A. Mologne, MC, Commanding General, and selected members of his staff.
- c. An entrance interview for the DENTAC was held with LTC Fredrick L. Wright, MS, Executive Officer, and SGM Berl L. Lovelace, USA, Command Sergeant Major. An exit briefing, to include a discussion of the findings and recommendations, was held with LTC Wright.
- d. The most recent survey of the overall radiation protection program at WRAMC/DENTAC, by this Agency, was conducted during the period 19-30 September 1983 (Radiation Protection Survey No. 28-43-0901-84).
- e. This survey was conducted by Mr. Harris Edge, DAC, and CPT Regina L. Russell, MS, Health Physics Division, this Agency.

5. FINDINGS.

a. General.

- (1) LTC William E. Woodward, MS; MAJ Gerald M. Connock, MS; CPT David E. Hintenlang, MS; and Mr. James E. Stafford, DAC, were designated in writing as the Radiation Protection Officer (RPO) and alternate RPO's, respectively, for WRAMC.
- (2) Mr. Wilbur W. McCottry, DAC, and LTC John W. McCartney, DC, were designated in writing as RPO and alternate RPO, respectively, for the DENTAC.
- (3) A written radiation protection program was available for review and appeared adequate for its intended purpose.

b. Personnel Dosimetry Program.

- (1) All personnel observed to be occupationally exposed to ionizing radiation used the Army film badge service.
- (2) CPT Hintenlang; SFC John S. Conners, Jr., USA; and SP5 William R. Brantley, USA, were designated in writing as custodians of DD Forms 1141, Record of Occupational Exposure to Ionizing Radiation.

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- (3) A review of the DD Forms 1141 indicated that, at the time of the survey, 404 individuals were identified as radiation workers by their inclusion in the Army film badge program. All had recorded accumulated exposures in the preceding year of less than 10 percent of the applicable whole-body dose equivalent limits (AR 40-14).
- (4) Forty individuals were included in the bioassay monitoring program. All had received internal exposures in the preceding year of less than 10 percent of the annual radiation exposure standard for a specific radionuclide as established by the International Commission of Radiological Protection and the National Council on Radiation Protection and Measurements.
- (5) The DD Forms 1952, Dosimeter Application and Record of Occupational Radiation Exposure, were being utilized to record occupational exposure histories and relevant health physics information; however, not all previous occupational exposure data for each radiation worker was obtained and included on the DD Forms 1141.

c. Radioactive Materials.

- (1) The use of radioactive materials for diagnosis, therapy, medical research and development, and instrument check and calibration was authorized by US Nuclear Regulatory Commission (NRC) License No. 08-01738-02 (expiration date 31 July 1987) at the following location: WRAMC, Washington, DC; WRAMC Forest Glen Section and Annex, Silver Spring, MD; US Army Medical Research Institute for Infectious Diseases (USAMRIID), Fort Detrick, MD; Andrew Radar US Army Health Clinic, Fort Myer, VA; Walter Reed Army Institute of Research (WRAIR) Animal Holding Facility, Fort Meade, MD; US Army Medical Laboratory, WRAMC Department of Pathology, Fort Meade, MD; and US Army Institute of Dental Research Facility, Fort Meade, MD.
- (2) The use of radioactive materials for animal irradiators at WRAIR and USAMRIID was authorized by NRC License No. 08-01738-03 (expiration date 31 August 1985).
- (3) The use of small quantities of radioactive byproduct material for in vitro clinical and laboratory tests at WRAMC, Washington, DC; WRAMC, Forest Glen Section; and US Army Medical Laboratory, WRAMC, was authorized by NRC Registration Certificate In Vitro Testing, Registration No. 6158 (dated 27 November 1981).
- (4) The use of radioactive materials which are not controlled by the NRC for human use, research and development, and instrument check and calibration was authorized by DA Radiation Authorization No. A 08-17-01 (expiration date 31 July 1987) at the following locations: WRAMC, Washington, DC; WRAMC, Forest Glen Section; Fort Detrick; Fort Myer; Fort Meade; and the Pentagon, Washington, DC.

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(5) A review of records and interviews with staff members of Nuclear Medicine Services, Radiation Therapy, and the Health Physics Office revealed that human use activities were being performed in accordance with AR 40-37, NRC License conditions, the DA Authorization, and applicable JCAH Standards, except for those findings and recommendations included in the HSC-IG report.

d. Diagnostic X-Ray Facilities.

- (1) Medical X-Ray Facilities. A review of records and interviews with staff members revealed that radiology services were being performed in accordance with applicable JCAH Standards, except for findings and recommendations included in the HSC-IG report.
- (2) Dental X-Ray Facilities. Dental services were being performed in accordance with applicable Army Regulations.
- (3) Veterinary X-Ray Facility. At the time of the survey, Veterinary Services had not been using its x-ray machine; nor did the veterinarian plan to use the x-ray machine in the future.

e. Records, Reports, and Surveys.

- (1) A complete inventory of ionizing radiation sources was available for review.
- (2) 'adiation protection surveys and maintenance procedures for diagnostic medical x-ray systems were being conducted.
- (3) All areas in which radioactive materials were used and stored were being surveyed monthly by the Health Physics staff, to include smear (wipe) tests.
- 6. CONCLUSION. A review of the findings indicated that there were no health hazards resulting from the use of ionizing radiation sources at WRAMC/DENTAC, Washington, DC. The overall radiation protection program was being conducted in accordance with current directives for radiation protection, with exceptions for which the following recommendations are provided.

7. RECOMMENDATIONS.

- a. <u>General</u>. None.
- b. <u>Personnel Dosimetry Program</u>. Ensure that all previous occupational exposure data is obtained and included on the DD Forms 1141 for each radiation worker (AR 40-14, paragraph 11d).
 - c. Radioactive Materials. None.

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d. Diagnostic X-Ray Facilities. None.

e. Records, Reports, and Surveys. None.

FOR THE COMMANDER:

BOSEPH T. WHITLAW, JR

Colonel, MS

Director, Radiation and Environmental Sciences

CF:
HQDA(DASG-PSP)
Cdr, HSC (HSDS)
Comdt, AHS (HSHA-IPM)
Cdr, WRAMC (2 cy)
Cdr, WRAMC (PVNTMED Svc) (2 cy)
Cdr, DENTAC, WRAMC (2 cy)
C, USAEHA-Rgn Div North