DEPARTMENT OF THE ARMY
US ARMY IONIZING RADIATION DOSIMETRY CENTER
LEXINGTON-BLUE GRASS ARMY DEPOT
LEXINGTON, KY 40511-5102

REPLY TO ATTENTION OF
AMCSF-P 89-0070
AMXTM-SR-DCN

14 April 1989

MEMORANDUM THRU

Chief, Radiation Standards and Development Lab, ATTN: AMXTM-SR, Mr. Kuykendall, Redstone Arsenal, AL 35898-5400

~~Commander, US Army Materiel Command, ATTN: AMCSF-P, 5001 Eisenhower Avenue, Alexandria, VA 22333-0001~~ 20 June 1989 J. Ebbers

FOR Director of Nuclear Material, Safety and Safeguards, US Nuclear Regulatory Commission, Washington, DC 20555

SUBJECT: Application for Renewal of USNRC Special Nuclear Material License Number SNM-623

1. The information required for renewal of SNM-623 is hereby submitted for approval in accordance with 10 CFR 70.22 and USNRC Regulatory Guide 10.3.

2. Name and address of applicant: US Army Ionizing Radiation Dosimetry Center, ATTN: AMXTM-SR-DC, Lexington, KY 40511-5102.

3. Activity for which material is requested: The special nuclear materials listed in this application are used for calibration of alpha and neutron detecting and measuring instruments by personnel of the center.

4. Period of time for which license is requested: five years.

5. Name, amount, and specifications of special nuclear material:

a. Plutonium 239, 10 Curies (160 gm) contained in a Plutonium-Beryllium alloy used as a neutron source. The source is encapsulated in a double wall, double sealed NUMEC Type K Capsule. The source serial number is 1600 K 33.

b. Plutonium 239, 7.81 microcuries (125 ugm) contained in 5 sets of four sources each. No one source will exceed 25 micrograms. These sources are Eberline Instruments Corporation Model S94-1 Alpha standards.

6. Technical qualifications of staff members: See TAB A for the curricula vitae of staff personnel authorized to use special nuclear materials.

7. Description of equipment and facilities: The 10 Curie Plutonium-Beryllium neutron source is contained in a NUMEC standard Plutonium-Beryllium shipping container which is stored in our isotope storage room. The source is used in our X-ray calibration room (room 6). When it is in use, a warning sign (Source On--Do Not Enter) located adjacent to the door of the room is lit. Entry into

FEE EXEMPT

the room while the source is exposed actuates an audible and visible alarm. See TAB B for additional information regarding our equipment and facilities.

8. Proposed procedures: See TAB C for our procedures as promulgated by USAIRDC SOP No. 1. Procedures for use of the Plutonium-Beryllium source are located at TAB D.

9. Decommissioning funding plan. Each of the sources listed in this license application are sealed sources. There is no requirement for a decommissioning funding plan for sealed sources containing special nuclear material.

10. The USAIRDC wishes to continue to operate under the conditions of current license and will operate in accordance with the information in this request and any applicable NRC regulations or license conditions. All references are included with this application.

11. This application is fee exempt in accordance with 10 CFR 170.11 (a)(5).

12. The record of environmental consideration is located at TAB E. The local Ionizing Radiation Control Committee approval is located at TAB F.

13. I may be contacted concerning this application for renewal of the license at (606) 293-3249.

Encls (TABs A-F)

A. EDWARD ABNEY
Chief, US Army Ionizing
Radiation Dosimetry Center

TAB A

RESPONSIBLE INDIVIDUALS

A. EDWARD ABNEY	Physicist Chief, USAIRDC	Radiation Protection Officer, Responsible for Supervision of Radiation Protection Program
STEPHEN V. HOWARD	Health Physicist, Chief, Special Nuclear Services	Alternate Radiation Protection Officer
KARL W. SWARTZ	Physicist, Acting Chief, Dosimetry	Alternate Radiation Protection Officer
WILLIAM E. BABER	Health Physicist Acting Chief, Repository	Alternate Radiation Protection Officer
WILLIAM R. SCRIVNER	Health Physicist	Alternate Radiation Protection Officer

A. EDWARD ABNEY

SUMMARY OF EDUCATION AND EXPERIENCE

MARCH 1989

BACKGROUND

Bachelor of Arts degree with Major in Physics - Berea College, Berea, KY

SPECIALIZED TRAINING

Basic Radiological Health, USPHS - Robert A. Taft Sanitary Engineering Center, Cincinnati, OH - two weeks
Occupational Radiation Protection, USPHS, Rockville, MD - two weeks
Depleted Uranium Radiation Safety, Battelle - Northwest Lab - one week
Applied Health Physics - Oak Ridge Associated University - five weeks

EMPLOYMENT

Lexington-Blue Grass Army Depot, Lexington, KY - 25 years

SPECIAL ASSIGNMENTS

Served as Alternate Radiological Protection Officer and as Deputy Radiological Accident/Incident Control Officer, 1972-85
Radiological Protection Officer - February 1985 to Present

EXPERIENCE WITH RADIOACTIVE MATERIALS (SPECIAL FORM)

All experience was gained at Lexington-Blue Grass Army Depot and all materials were used for calibration of instruments and/or film. All materials were in the form of sealed sources.

ISOTOPE	AMOUNT	EXPERIENCE	USE
^{226}Ra	100 mgs	17 years	Calibration of Instruments and Film
^{226}Ra	500 mgs	17 years	Calibration of Instruments and Film
^{239}Pu Be	10 curie	22 years	Calibration of Instruments and Film
^{60}Co	500 curie	5.5 years	Calibration of Instruments and Film
^{60}Co	10 curie	22 years	Calibration of Instruments and Film
^{137}Cs	120 curie	22 years	Calibration of Instruments and Film

ISOTOPE	AMOUNT	EXPERIENCE	USE
^{90}Sr	30 mc	22 years	Calibration of Instruments
^{239}U	Discs	22 years	Beta Calibration of Film
^{55}Fe	25 mc	17 years	Calibration of Instruments and Film
^{60}Co	1200 curie	17 years	Calibration of Instruments and Film
^{252}Cf	40 microgram	6 months	Calibration of Instruments and Film

EXPERIENCE WITH UNSEALED RADIOACTIVE MATERIALS

Experience gained at Lexington-Blue Grass Army Depot with exempt quantities of materials. Material used in preparation of calibration samples used in liquid scintillation counting and in preparation of standard samples used in leak test evaluations.

ISOTOPE	AMOUNT	EXPERIENCE	USE
^{3}H	39 uc	10 years	NBS standard solution used for preparation of standards used in liquid scintillation counting.
^{90}Sr	.030 uc	8 years	NBS standard solution for use in ^{90}Sr leak test evaluations.

Experience includes approximately 22 years experience in handling and processing leaking ^{90}Sr sources for disposal and in the preparation of other radioactive waste for disposal.

CURRICULUM VITAE
STEPHEN V. HOWARD
HEALTH PHYSICIST

HOME ADDRESS: 1722 Birch Bark Lane
Jeffersonville, IN 47130
Phone: (812) 288-6525

DATE OF BIRTH: 12 May 1953

PLACE OF BIRTH: Fort Campbell, KY

CIVILIAN EDUCATION

Union College Barbourville, KY	Bachelor of Science Biology	1976
Basic X-Ray Protection	University of Louisville 1 week	1978
Radiological Emergency Response Operations Beatty, NV	Nuclear Regulatory Commission 2 weeks	1978
Legal Aspects of Enforcement	US HEW 1 day seminar	1978
Advanced Health Physics Oak Ridge, TN	Nuclear Regulatory Commission Oak Ridge Associated University	1979
Industrial Radiography Baton Rouge, LA	Nuclear Regulatory Commission	1981
American Board of Health Physics Certification Preparation Course	Health Physics Society 5 months	1983
Packaging and Transportation of Radioactive Materials, Orlando, Fl.	Nuclear Energy Waste Consultants 1 week	1984
Introduction to Automatic Data Processing	Albers & Associates 1 week	1984
Laser Safety Course	AMC Field Safety Activity 1 week	1985
DOT and Rad-Waste Seminar	Chem-Nuclear 1 week	1986
Laser Microwave Course	USAEHA 1 week	1986

Radiological Hazards Associated with Depleted Uranium.	Belvoir RD&E Center Pacific Northwest Laboratory 1 week	1987
Explosives Safety	AMC Field Safety Activity 1 week	1987
Chemical Agent Safety	AMC Field Safety Activity 1 week	1988
How to Handle Difficult People	Fred Pryor Associates 1 day seminar	1988
Supervisory Writing Skills	LBAD 2 day seminar	1989

MILITARY EDUCATION

Military Police School	Ft. McClellan, AL	1981
AMEDD Officer Basic Course	Academy of Health Sciences 8 weeks	1982
Preventive Medicine Management Course	Academy of Health Sciences 2 weeks	1982
X-Ray Survey Techniques	Academy of Health Sciences 2 weeks	1983
Nuclear Medical Science Officer Workshop	Army Environ. Hyg. Agency 1 week	1983
AMEDD RPO Workshop	Army Environ. Hyg. Agency 1 week	1983
AMEDD Officer Advanced Course	Correspondence	1984
Nuclear Hazards Course	Albuquerque, NM 1 week	1984
FORSCOM Pre-Command Course	Lexington, KY 2 days	1985
FORSCOM Pre-Command Course (Refresher)	Nashville, TN 2 days	1989

WORK EXPERIENCE

May 1988 - Present
Supervisory Health Physicist
Chief, Special Nuclear Services
US Army Ionizing Radiation Dosimetry Center
Lexington, KY 40511-5102
Phone: AV 745-3942/3666
COMM: (606) 293-3942/3666

SIGNIFICANT DUTIES AND RESPONSIBILITIES: USAIRDC

I am responsible for managing the laboratory which provides leak test analysis for military radioactive commodities including the M-8, Chemical Agent Detector (45,000) the Chemical Agent Monitor (44,000), and Moisture-Density Tester (122). We also provide radiological wipe test analysis for military units throughout the free world. I supervise eight employees including four physical science technicians, 2 electronic technicians, a radiation support clerk, and a health physicist.

April 85-May 88
Health Physicist
AMC Field Safety Activity
Charlestown, IN
Phone: AV 386-7418/7711
Comm: (812) 284-7418/7711

SIGNIFICANT DUTIES AND RESPONSIBILITIES: AMC FSA

I assisted in planning, developing and coordinating the Army Material Command (AMC) Radiation Safety Program. I reviewed the basic safety practices and safety standards for design, development, production, movement, and maintenance, etc. of radioactive supply items which are supplied by AMC or used by AMC activities. I provided staff visits, consultations, and inspections of radiation safety programs at AMC facilities and gave Commanders verbal reports. I performed radiation safety studies and emergency response at AMC facilities as required. I wrote and reviewed technical reports. I reviewed for adequacy the plans, procedures, and proposals of environmental radiological monitoring plans for Army nuclear reactors.

Promoted to GS-13 on 20 April 1986.

April 82-Apr 85
Nuclear Medical Science Officer
US Army Environmental Hygiene Agency
Aberdeen Proving Grounds, MD
Phone: AV 584-3502/3526
Comm: (301) 671-3502/3526

SIGNIFICANT DUTIES AND RESPONSIBILITIES: USAEHA

I have used my knowledge of health physics and radiation control mechanisms to evaluate radiation safety programs at Army, Defense Logistics Agencies, and Department of Defense installation/activities for the Surgeon General of the Army. I have been responsible for writing and reviewing technical reports. As a member of the Health Services Command Inspector General Inspection Team, I was responsible for evaluating radiation safety programs in medical institutions for the Commander of Health Services Command. During the above mentioned evaluations I was responsible for interfacing with the institution Commanders, including General Officers, to brief them on radiological hazards. I have used my knowledge of NRC regulations and licensing procedures to review NRC license applications and Department of the Army Radiation Authorizations/Permits for the Army Surgeon General and the Commander of Health Services Command. While providing evaluations of radiation safety programs, I trained other senior officers, in radiation protection survey techniques. In addition to my duties as a survey officer, I was responsible to the Agency Commander for managing and supervising the radiation safety program at the US Army Environmental Hygiene Agency. As the radiation safety officer, I have supervised four personnel including three Nuclear Medical Science Officers (Health Physicists) and one Health Physics Technician.

IMPORTANT KNOWLEDGE SKILLS AND ABILITIES: USAEHA

I have developed a broad understanding of health physics to include medical and industrial radiation protection. I have gained extensive knowledge of NRC regulations and military command protocols concerning radiation protection. I have a broad understanding of radiation detection instrumentation. I have the ability to accept an assigned task and work independently until the task is completed. I have learned to communicate orally and in writing with junior and senior personnel. I have developed the ability to write clearly and concisely. I have learned to effectively supervise professional personnel. I have developed an understanding of the methods of providing training to personnel. I have been approved by the NRC as the radiation safety officer to manage three NRC licenses including a Byproduct Material License, a Source Material License, and a Special Nuclear Material License.

SIGNIFICANT ACCOMPLISHMENTS: USAEHA

I was appointed the Radiation Protection Officer of USAEHA in addition to my duties as a radiation protection survey officer. I received an Army Commendation Medal for my diligence in performing these duties.

Oct 76-Apr 82
Senior Radiation Physicist
Radiation Control Branch
Kentucky Dept. for Human Resources
275 East Main Street
Frankfort, KY 40621
Phone (502) 564-3700

SIGNIFICANT DUTIES AND RESPONSIBILITIES: KENTUCKY

As a senior radiation physicist I was responsible for performing state inspections of medical and industrial x-ray equipment, training incoming personnel, and assisting in the formulation of state policy concerning radiation protection. I was responsible for providing emergency response coverage within my area of responsibility. I wrote and reviewed technical reports. I communicated directly with medical and industrial management personnel concerning regulatory standards for radiation protection.

IMPORTANT KNOWLEDGE, SKILLS, AND ABILITIES: KENTUCKY

I gained extensive knowledge in the use of radiation detection instrumentation with special emphasis on the instruments used for medical x-ray measurement. I refined my ability to communicate with high level management i.e. doctors, hospital administrators, industrial management personnel and state executives. I gained experience in providing emergency response to radiological accident situations.

EXPERIENCE UTILIZING IONIZING RADIATION

Any byproduct material with Atomic Numbers 3-83	10 Curies (Ci)
Any byproduct material with Atomic Numbers 84-100	500 millicuries (mCi)
Plutonium, Beryllium, Neutron Source	208 grams (3 Ci)
Plutonium, plated alpha source	500 micrograms
Plutonium, Standard Solution	500 micrograms
Uranium (natural)	46 kilograms
Uranium (depleted)	230 kilograms
Thorium	23 kilograms
Americium-241, sealed and foil sources	2 mCi each 10 mCi total

Americium-241, (Amersham AMC 50)	5 Ci
Carbon-14, sealed source	5 Ci
Cesium-137, sealed source	130 Ci
Radium 226, sealed and unsealed	130 Ci
Tritium (H-3), any form	1 Ci
Tritium, (H-3), sealed sources	950 Ci
Krypton-85	5 Ci
Nickel-63	2 Ci
Promethium-147	50 Ci
Strontium-90	5 Ci
Thallium-204	5 Ci

PROFESSIONAL SOCIETIES:

Health Physics Society

KARL W. SWARTZ

SUMMARY OF EDUCATION AND EXPERIENCE

March 1989

BACKGROUND

Bachelor of Science degree with Major in Physics - University of Kentucky, Lexington, KY. Three years graduate study in Physics - University of Kentucky

SPECIALIZED TRAINING

Basic Radiological Health - University of Texas Health Science Center at San Antonio, San Antonio, TX - one week
Advanced Radiological Health - UTHSCSH - one week
Personnel Radiation Dosimetry - Dosimetry Application Research (DOSAR) Facility, Oak Ridge, TN - one week
Occupational Radiation Safety Instructor Training - LBAD, Lexington, KY - two days

EMPLOYMENT

Lexington-Blue Grass Army Depot, Lexington, KY - Physical Science Technician, Physicist: 13 years
University of Kentucky - Research and Teaching Assistant: 3 years
Self-Employed - Draftsman: 2 years

EXPERIENCE WITH RADIOACTIVE MATERIALS

ISOTOPE	AMOUNT	EXPERIENCE	USE
^{60}Co	1200 Ci	9 years	Calibration of film and TLD
^{60}Co	10 Ci	3 years	Calibration of film
^{137}Cs	120 Ci	7 years	Calibration of film and TLD
^{90}Sr	30 mCi	8 years	Calibration of film and TLD
^{238}U	discs	9 years	Calibration of film and TLD
^{85}Kr	5 mCi	4 years	Calibration of film
^{226}Ra	7 mCi	4 years	Calibration of film
^{3}H	unknown	2 years	p,n reaction for neutron scattering research
^{137}Cs	2 Ci	1 year	Standardization of TLD
$^{239}PuBe$	10 Ci	2 years	Dosimeter testing
^{252}Cf	40 ugm	2 years	Calibration of TLD

EXPERIENCE WITH RADIATION-PRODUCING EQUIPMENT

EQUIPMENT	EXPERIENCE	USE
30 Kev x-ray	8 years	Calibration of film and TLD
250 Kev x-ray	7 years	Calibration of film and TLD
6 Mev Van De Graaff accelerator	2 years	Neutron scattering and gamma spectroscopy research

WILLIAM E. BABER, Health Physicist, U.S. Army Ionizing Radiation Dosimetry Center, Lexington, KY 40511-5102

A. EDUCATION:

(1) B.S. - Eastern Kentucky University, Richmond, KY, Major: Mathematics

(2) M.A. - Eastern Kentucky University, Richmond, KY, Guidance and Counseling

B. PROFESSIONAL EXPERIENCE.

(1) February 1982 - October 1982, U.S. Army Ionizing Radiation Dosimetry Center, Lexington, KY. Worked as a technician in the U.S. Army Film Badge and TLD Dosimetry Program.

(2) October 1982 - July 1985, Health Physicist, Lexington-Blue Grass Army Depot, Lexington, KY. Served as Radiation Protection Officer. Responsible for development and implementation of the local Radiation Protection Program in accordance with Federal and Army directives.

(3) July 1985 - July 1986, Health Physicist, U.S. Army Missile Command, Redstone Arsenal, AL. Responsible for assisting in planning, implementing and operating a Radiological Safety program for MICOM and other attached or assigned organizations. Served as Alternate Radiation Protection Officer and Alternate MICOM Laser Safety Officer.

(4) July 1986 - September 1987, Health Physicist, Radiation Standards and Development Laboratory, U.S. Army TMDE Support Group, Redstone Arsenal, AL.

(5) September 1987 - July 1988, Health Physicist, U.S. Army TMDE Support Group-CONUS Activity, Redstone Arsenal, AL.

(6) July 1988 - Present, Health Physicist, U.S. Army Ionizing Radiation Dosimetry Center, Lexington, KY.

C. SPECIALIZED TRAINING:

(1) U.S. Army Ionizing Radiation Dosimetry Center, Lexington, KY, On-the-Job-Training, 1982-83.

(2) Basic Radiological Health, University of Texas Health Science Center, San Antonio, TX, 1 week, 1982.

(3) Radiological Safety, U.S. Army Chemical School, Fort McClellan, AL, 3 weeks, 1983.

(4) Radiological Safety I, Army Institute for Professional Development, 13 correspondence hours, 1983.

(5) Radiological Hygiene, Eastern Kentucky University, Richmond, KY, 8 hours, 1983.

(6) Industrial Hygiene Aspects of the OSH Act, Field Safety Activity, Charlestown, IN, 1 week, 1983.

(7) Laser and Microwave Workshop, Edgewood Arsenal, Aberdeen Proving Ground, MD, 1 week, 1983.

(8) Emergency Planning and Control, Management Corp., Fort Belvoir, VA, 1 week, 1983.

(9) Applied Health Physics, Oak Ridge Associated Universities, Oak Ridge, TN, 5 weeks, 1985.

(10) Radioactive Materials Transportation Course, Fort Belvoir, VA, 1 week, 1985.

(11) Regulatory Awareness-Radioactive Waste Packaging, Transportation and Disposal Course, Chem-Nuclear Systems, Inc., Columbia, SC, 1 week, 1985.

D. EXPERIENCE WITH RADIATION:

(1)

Isotope	Amount	Experience	Use
Co 60	130mCi-10Ci	6 yrs.	Source exchange, leak testing, shipping, receiving and storage.
Kr 85	5mCi	6 yrs.	Shipping, receiving, storage.
Pu 239	1.4uCi-50.21uCi	6 yrs.	Leak testing, calibration, shipping, receiving, storage.
Sr-Y 90	200mCi	6 yrs.	Maintenance, calibration, leak testing, shipping, receiving, storage.
Cs 137	0.01uCi-120Ci	6 yrs.	Storage, leak testing.
Ra 226	Various	6 yrs.	Shipping, receiving, storage.
Th 230/232	Various	6 yrs.	Shipping, receiving, storage.
Po 210	40mCi	2 yrs.	Shipping.
Co 60	150Ci	2 yrs.	Leak testing.
Ni 63	15mCi	2 yrs.	Leak testing.

(2) Ionizing Radiation Producing Devices:

Source Type	mA	KVp	Duration	Location
X-Ray Diffraction	50	60	1 year	MICOM
Industrial X-Ray	1-3	140-320	July 1985 to present	MICOM USAIRDC
Betatron	--	25 MeV	1 year	MICOM

(3) Radioactive waste shipments.

(4) Supervision of refurbishment project involving 284 ea. AN/UDM-2 Sr-Y 90 calibrators.

(5) Performed M1A1 Co 60 source exchanges in the M3A1 calibrator.

WILLIAM R. SCRIVNER

SUMMARY OF EDUCATION AND EXPERIENCE

MARCH 1989

BACKGROUND

Bachelor of Science degree with major in Chemistry, Eastern Kentucky University, Richmond, KY; minor in Business Management, University of Kentucky Community College

SPECIALIZED TRAINING

Radiochemistry, four semester hours, University of Kentucky
Radiological Health, three semester hours, Eastern Kentucky University
Toxicology, three semester hours, Eastern Kentucky University
Health Physics and Radiation, one week, Fort Belvoir, VA
Industrial X-Ray and Gamma Radiation Protection, one week, Fort Belvoir, VA
Radiological Protection Program Management Course, 1.8 units, Charlestown, IN
Radiological Safety Course 7K-F3, three weeks, Fort McClellan, AL

EMPLOYMENT

Lexington-Blue Grass Army Depot, Ionizing Radiation Dosimetry Center, Physical Science Technician-Radiation: 8 months; Health Physicist: 3 years

Univeristy of Kentucky, Lexington, KY, Chemist: 3 years

EXPERIENCE WITH RADIOACTIVE MATERIALS SPECIAL FORM

All leak test experience gained at US Army Ionizing Radiation Dosimetry Center, LBAD, Lexington, KY. All experience in radioactive waste material management at USAIRDC, LBAD. All radiological survey experience gained at USAIRDC, LBAD.

ISOTOPE	QUANTITY	EXPERIENCE
^{60}Co	1200 Ci	4 years
^{137}Cs	120 Ci	4 years
$^{90}Sr^{90}Y$	200 mCi	4 years
$^{239}PuBe$	10 Ci	4 years
^{252}Cf	40 ug	2 years
^{239}Pu	50 uCi	4 years
Various	Small Sources	4 years

EXPERIENCE WITH UNSEALED RADIOACTIVE FORMS

Experience gained at the University of Kentucky with exempt quantities of materials used in plant physiology.

ISOTOPE	EXPERIENCE
^{14}C	2 years
^{22}Na	2 years

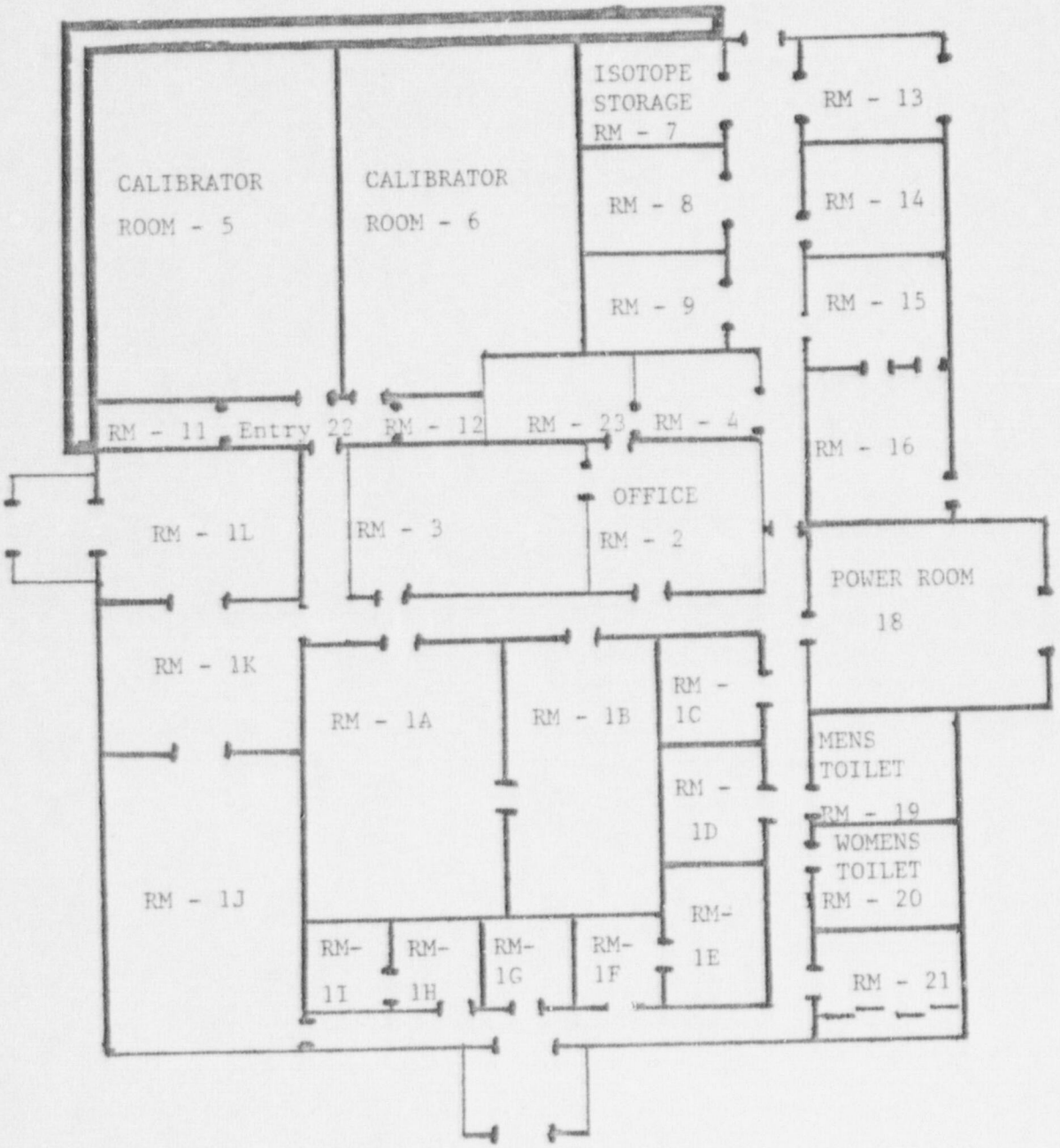
Experience gained at Lexington-Blue Grass Army Depot with exempt quantities of materials used in preparation of calibration samples for counting in liquid scintillation, well scintillation, and gas proportional instruments.

ISOTOPE	EXPERIENCE
^{241}Am	2 years
^{63}Ni	2 years
^{3}H	2 years
^{14}C	2 years

TAB B

FACILITIES

Each of the walls for rooms five, six, and seven are made of 18-inch poured concrete. See diagram below. Each of the exterior walls of those rooms has an additional 18 inches of poured concrete shielding. For further information on facility construction, refer to USAIRDC SOP No. 1, Section 4. A copy of that SOP is located at TAB C.



HEADQUARTERS
US ARMY IONIZING RADIATION DOSIMETRY CENTER
LEXINGTON, KENTUCKY 40511-5102

STANDING OPERATING PROCEDURES 01
US ARMY IONIZING RADIATION DOSIMETRY CENTER FEBRUARY 1989

RADIOLOGICAL PROTECTION PROGRAM FOR US ARMY IONIZING RADIATION DOSIMETRY CENTER

This SOP supersedes USAIRDC SOP 01, Sep 1987 and all changes

Section I

GENERAL

1. Purpose. To outline procedures and assign responsibilities to assure that adequate safeguards are maintained to protect personnel who operate or come into contact with x-ray machines or equipment containing radioactive sources.

2. Scope. This procedure applies to personnel of US Army Ionizing Radiation Dosimetry Center, and US Army Area Calibration & Repair Center.

Section II

RESPONSIBILITIES

3. Chief, US Army Ionizing Radiation Dosimetry Center and US Army Area Calibration and Repair Center, Lexington will:

a. Establish adequate safeguards for personnel protection.

b. Assure that safeguards are maintained by personnel in the centers.

c. Assure that exposure of personnel is kept to a minimum consistant with performance of center functions.

d. Designate personnel authorized to operate the various equipment.

4. Personnel authorized to use radioactive sources will comply with all safeguards outlined in this procedure.

Section III

PERSONNEL PROTECTION

5. Maximum permissible exposures.

a. Exposure of personnel to radiation shall be kept to an absolute minimum and shall not exceed the permissible exposure listed in AR 40-14.

b. Permissible exposure listed in AR 40-14 is as follows:

(1) The accumulated quarterly equivalent of radiation will not exceed for:

(a) Whole body; head and trunk; active blood-forming organs; lens of eyes; gonads----------1-1/4 rems

(b) Hands and wrists; feet and ankles--------18-3/4 rems

(c) Forearms----------10 rems

(d) Skin of whole body----------7-1/2 rems

(e) Thyroid, other organs, tissues and organ systems----------5 rems

(2) Individuals under 18 years of age, females known to be pregnant, and occasionally exposed individuals will not be exposed to a whole-body dose equivalent of more than:

(a) 2 millirems in any 1 hour, nor

(b) 100 millirems in any 7 consecutive days, nor

(c) 500 millirems in any 1 calendar year, nor

(d) more than 10 percent of the values in (1) and (2) above, for other areas of the body.

(3) Individuals over 18 years of age, but who have not yet reached their 19th birthday, may be occupationally exposed to ionizing radiation provided that they do not exceed 1.25 rems dose equivalent to the whole-body in any calendar quarter, nor 3 rems in the 12 consecutive months prior to their 19th birthday.

(4) It is the responsibility of the female employee to advise her employer of the fact that she is pregnant.

6. Protective devices.

a. All certified radiation workers will wear TLD badges as directed by the RPO at all times when performing duties involving the direct use of radioactive sources or x-ray machines.

b. Radiation workers may use pocket dosimeters, in addition to TLD badges, when performing duties involving the direct use of radioactive sources or x-ray machines. The readings obtained from the dosimeters are for information only and need not be recorded. Pocket dosimeters may be required for certain operations at the discretion of the physicist in charge.

7. Area surveying and monitoring instruments. All radiac instruments normally used in USAIRDC for area surveying and monitoring are to be kept in operating condition. Instruments are to be checked and calibrated at least once every 3 months unless designated as contingency. All portable survey instruments will be calibrated in accordance with Army calibration procedures as published in TB 43-180 and TB 750-25. A list of available instruments or their equivalent is provided:

a. Portable instruments.

(1) Two AN/PDR-27 - Gieger Counter-Beta Gamma .5, 5 mR/hr; gamma 50, 500 mR/hr.

(2) One Eberline, PIC-6A - Ion Chamber - Gamma 10, 100, 1000 mR/hr; 10, 100, 1000 R/hr.

(3) Two IM-174A (Contingency) - Ion Chamber - Gamma 500 R/hr.

(4) Two Nuclear Research Corporation Model NP-2, Portable Neutron Monitor, 0-10K mR/hr.

(5) Two Eberline Model ESP-1/NRD-871, HP-280 Neutron Detector, 0-200K mR/hr, HP-270, Gamma Detector, 0-2K mR/hr.

(6) One Victoreen Model 740 Cutie Pie Survey Meter, 0.01; 1.0; 10.0 R/hr.

(7) One Eberline PRM-5, Portable Pulse Rate Meter Counter, 0-500K CPM.

(8) One Victoreen Model 440 RF/A Survey Meter, 3-300 mR/hr in 5 ranges.

(9) Two CMS Inc. Delta Rate Monitors, Model 2, Bkg to 99,999 counts/sec.

(10) One Victoreen Model 490 Survey Meter 0.2-200 mR/hr in 4 ranges.

(11) Two Ludlum Model 177-57 Ratemeters with alpha and beta gamma probes.

(12) One Eberline Model PAC-ISA Alpha Survey Meter, 0-2000K CPM.

(13) Two Eberline micro-R rate meters, Model PRM-7, 0-5 mR/hr.

b. Stationary monitoring devices.

(1) Four each Victoreen Model 808 Area Monitors. One unit is located in each of the two calibration rooms, 5 and 6. One unit is located in laboratory room 3. The remaining unit can be located as required or used as a replacement for one of the above three units. These units give a visible and audible indication of a rise in radiation intensity.

(2) One Eberline HFM-2 Hand and Foot Monitor. Unit has two hand channels, two foot channels, and one probe channel. Hand and foot channels give visible and audible alarm upon detection of any predetermined amount of beta or gamma radiation. Alarm levels are adjustable by means of meter relays.

8. Records of radiation exposure.

a. Records of radiation exposure will be maintained in accordance with AR 40-14 and Federal Register.

b. TLD badge readings for certified radiation workers will be forwarded to the post radiological protection officer immediately after the wearing period. These readings will be recorded on the individual DD Forms 1141 as required by AR 40-14.

c. A record of their accumulated dosage at the end of each calendar year will be furnished to certified radiation workers upon request, as required by 10 CFR 19.13.

Section IV

FACILITIES

9. Calibration rooms.

a. Rooms number 5 and 6 in building 139 are used for calibration of instruments and dosimeters using Cobalt-60, Plutonium-Beryllium, Cesium-137, Californium-252, 320-KVCP x-rays, and Grentz-rays.

b. The outside walls of rooms 5 and 6 are of poured concrete 36 inches thick. The wall between the two rooms is of poured concrete 18 inches thick.

c. Controls for operating the x-ray machines, Californium-252 and 5000-curie Cobalt-60 irradiator are located in isolated rooms directly behind the source of radiation. Each control room has an observation window of 2-inch lead glass connecting it with the calibration room. The doors are lead lined.

10. Laboratory.

a. Room number 3 is designated as the laboratory and is used for sample preparation and low-level counting. Room 1L is also used for low-level counting.

b. All work benches in room 3 have stainless steel tops. Stainless steel sinks and a stainless steel fume hood are located in the room.

11. Counting equipment. Various types of counting setups are available. These include scalers, count-rate meters, 2-pi gas flow counters, well-type scintillation detectors, automatic alpha beta gamma counters, and liquid scintillation counters.

12. Decontamination room. The decontamination room contains a fume hood and two deep stainless steel sinks.

13. Isotope storage room.

a. The isotope storage room has poured concrete walls 18 inches thick and lead lined door.

b. Radium sources and soft lab waste storage are in a separate concrete block building equipped with forced air ventilation.

Section V

CONTROL OF RADIATION SOURCES

14. Responsible personnel. Personnel responsible for use of radioactive sources and radiation producing machines are:

A. Edward Abney - Physicist, Chief, USAIRDC Radiological Protection Officer.

Karl W. Swartz - Physicist, Alternate USAIRDC Radiological Protection Officer.

Stephen V. Howard - Health Physicist, Alternate USAIRDC Radiological Protection Officer.

William E. Baber - Health Physicist, Alternate USAIRDC Radiological Protection Officer.

William R. Scrivner - Health Physicist, Alternate USAIRDC Radiological Protection Officer.

Personnel listed above are authorized to use any radiation sources possessed by USAIRDC. A list of additional personnel authorized to use the x-ray machines, 5000-curie Co-60 source, AN/UDM-1, AN/UDM-1A, J. L. Shepard Model 149 D_2O, and Williston-Elin Model WE 2001 will be posted in a conspicuous place. The list will be approved by the Chief of USAIRDC or his authorized representative.

15. Interlock and warning system.

a. Calibration room number 5.

(1) Room number 5 houses the 5000-curie Co-60 irradiator, and an AN/UDM-1 and AN/UDM-1A.

(2) Maximum surface radiation with units in 'safe' position are as follows:

(a) 5000-curie Co-60 irradiator - 0.25 mR/hr.

(b) AN/UDM-1 Calibrator - 200 mR/hr.

(c) AN/UDM-1A Calibrator - 10 mR/hr.

(3) The 5000-curie Cobalt-60 irradiator controls are located in the observation room 26 directly in the rear of room number 5. Operating instructions are posted near the control panel.

(4) The door to room 5 and the gate enclosing the only ladder to the roof of the building are interlocked with the controls of the irradiator in the following manner:

(a) In order for the source mechanism to be operated, the door to room 5 must be closed; the gate to the ladder which leads to the roof must be closed and locked. If either is open, the source will not rise to the open position.

(b) An electric warning sign is located beside the door to room 5. This sign lights up when the source is raised to the opened position. A buzzer located in the control panel and a bell located inside room 5 are in parallel with the electric sign and both are actuated when the source is raised.

(c) As an added safety feature, the door to room 5 and the gate to the roof ladder are so interlocked that should either be opened in any manner, the source will automatically drop to the safe position.

(5) The AN/UDM-1 has the following safety devices:

(a) The source is operated mechanically from a position directly behind the source container.

(b) When the source is raised to the open position, a warning light and buzzer located directly in front of the operator are actuated.

(c) A warning light located outside entry hall #22 is also actuated.

(d) The source mechanism is padlocked when not in use.

(6) The AN/UDM-1A is equipped with a buzzer and a warning light that energizes automatically when the source is rotated to the open position or when the filter is removed from the port. The source mechanism is padlocked when not in use.

(7) Room 5 is equipped with an alarm device as required by paragraph 20.203(c)(2), Code of Federal Regulations.

b. Calibration room number 6.

(1) Room 6 houses a 320-KVCP industrial Seifert x-ray machine, a Grentz-ray machine, a J. L. Shepard Model 149 Californium-252 calibrator, and two Williston-Elin Cesium-137 calibrators. These machines are used for exposure of dosimeters and radiacmeters for purposes of calibration.

(2) Surface radiation:

(a) Maximum surface radiation with J. L. Shepard Model 149 D_2O, 40 micrograms Cf-252 in 'safe' position is 0.4 mR/hr.

(b) Maximum surface radiation with Williston-Elin Model 2001 is 0.25 mR/hr in the operational mode, beneath the source in the left side of the unit.

(3) The x-ray and neutron irradiator controls are located in the observation room number 12 directly in the rear of room number 6.

(4) An electronic warning sign is located beside the door to room 6 and is automatically set upon Grenz-ray activation. This system allows a manual setting for operation of the neutron source or Seifert x-ray as appropriate. The Seifert x-ray has a warning light that is automatically set upon activation.

(5) The Seifert x-ray and the neutron source have an automatic audible warning alarm prior to activation.

(6) The J. L. Shepard Cf-252 irradiator has the following safety devices:

(a) The key and interlock connector are controlled by the key control officer.

(b) The control panel is interlocked such that the door must be closed to operate the source and that opening the door while the source is in operation will cause the source to automatically be returned to its safe position. A restart can only be performed at the control panel.

(7) The Williston-Elin Cs-137 irradiator is equipped with the source in a cabinet separated from the sample loading area of the irradiator. The source key is controlled by the key control officer.

(8) The Grenz-ray is interlocked with the door to room 6 such that the high voltage cannot be activated with the door open. When the door is opened during operation, the voltage is interrupted. A restart can only be performed at the control panel.

(9) The Seifert x-ray has the following safety devices:

(a) The keys (2) are controlled by the key control officer.

(b) An emergency shut-off switch is located on the track inside room 6.

(c) The door to room 6 is interlocked with the control panel such that the door must be closed to activate the high voltage. When the door is opened during operation, a shutter is closed to prevent irradiation. A restart can only be performed at the control panel.

(10) Room 6 is also used for exposure utilizing various portable sources of radiation. When these sources are used in this room, the user activates a system which turns on an outside warning light and causes an audible and visible alarm to be actuated upon accidental entry into the room.

(11) Room 6 is equipped with an independent alarm device that activates a visible and audible alarm upon an increase in radiation intensity within the room. This device is in accordance with paragraph 20.203(c)(2), Code of Federal Regulations.

16. Operating instructions. Operating instructions for the 5000-curie Cobalt-60 irradiator, AN/UDM-1, AN/UDM-1A, J. L. Shepard Model 149 D_2O, Williston-Elin Model 2001, and Eberline S94-1 are in appendixes A, B, C, D, E, and F respectively.

17. Leak test of radioactive sources. Unless specifically exempted by a DA authorization or an NRC license, all sealed sources exceeding the quantities in 10 CFR 30.71, Schedule B, will be leak tested at least once every 6 months. Alpha sources exceeding these quantities will be tested once every 3 months, unless otherwise exempted.

18. Area radiation surveys.

(a) Surveys of each area in which radioactive materials are used and/or stored shall be performed by or under the direction of the Radiological Protection Officer at least once each month.

(b) At least once each six months interlocks and warning systems will be checked for function and the results documented. The shutter on the Seifert x-ray will be checked for leakage at least once each six months.

19. Disposal of radioactive items.

a. Radioactive items will be disposed of in accordance with instructions outlined in AR 385-11.

b. Volume will be reduced to minimum by separation of non-radioactive waste.

c. After receipt of shipping instructions, material will be packed and shipped in accordance with instructions and DOT regulations.

Section VI

MISCELLANEOUS

20. Preparation. This SOP was prepared by William R. Scrivner, Health Physicist, Special Nuclear Services Branch, US Army Ionizing Radiation Dosimetry Center.

A. EDWARD ABNEY
Chief, US Army Ionizing
Radiation Dosimetry Center

CONCURRED:

JAMES L. ROSE
Chief, USA Area Calibration
and Repair Center-Lexington

APPROVED:

RICHARD L. GARVER
Safety Director
LEAD

Appendix A

INSTRUCTION FOR OPERATION OF
AECL 5000-CURIE COBALT-60 SOURCE

ONLY AUTHORIZED PERSONNEL MAY OPERATE THIS SOURCE

1. A list of personnel authorized to operate this source is posted on the control console.

2. Obtain keys from key control officer.

3. Close and lock door to exposure room.

4. Insert key into master switch on control console in observation room #12 and turn on. (Make certain key to outside ladder is on the same key ring.)

5. Set timer to desired exposure time.

6. Push reset button.

7. Push On-Off switch to On position.

8. Check:

   a. 'Beam On' light on control console.

   b. 'Source On - Do Not Enter' light next to door.

   c. Victoreen 'Vamp' monitor at rear of exposure room.

9. When source is turned off (manually or by timer):

   a. Check 'Beam Off' light on control console.

   b. Check 'Source On - Do Not Enter' light next to door.

   c. Check Victoreen 'Vamp' monitor at rear of exposure room.

10. Turn off control panel with key when through using source.

11. Lock the room and return the key to key control officer.

Appendix B

INSTRUCTIONS FOR OPERATION OF
AN/UDM-1 (10-CURIE COBALT-60)

ONLY AUTHORIZED PERSONNEL MAY OPERATE THIS SOURCE

1. A list of personnel authorized to operate this source is posted on the table holding the source.

2. Obtain keys from key control officer.

3. Unlock padlock around control lever.

4. Warn personnel that source is to be exposed. Make certain that no one is inside yellow line.

5. Select proper filter.

6. Expose source with control lever.

7. Check for operation:

a. Audible buzzer.

b. Red light on source table.

c. Victoreen 'Vamp' monitor (if no filter is used).

d. Periodically check red warning light on wall next to door leading to observation rooms.

8. Upon completion of exposure turn source off with control lever.

9. Reinsert filter 'A' into port on source container.

10. Lock control lever with padlock when through using source.

11. Lock the room and return the key to key control officer.

Appendix C

INSTRUCTIONS FOR OPERATION OF
AN/UDM-1A (120-CURIE CESIUM-137)

ONLY AUTHORIZED PERSONNEL MAY OPERATE THIS SOURCE

1. A list of personnel authorized to operate this source is posted on the source container.

2. Obtain keys from key control officer.

3. Unlock padlock on filter removal lever.

4. Warn personnel that source is to exposed. (No personnel other than those using source are to be in calibration room.)

5. Remove filter from port in source holder with removal lever.

6. Expose source with control levers on top of source container.

7. Check:

   a. Audible buzzer.

   b. Victoreen 'Vamp' monitor.

   c. Red light on source table.

8. If exposure is made to dose measuring instruments and is longer than one minute, leave the calibration room.

9. If exposure is made to dose rate measuring instruments, or is shorter than one minute, stay directly behind the source holder.

10. Lock filter removal lever with padlock when through using source.

11. Lock the room and return the key to key control officer.

Appendix D

INSTRUCTIONS FOR OPERATION OF
J. L. SHEPARD MODEL 149 D_2O 40 MICROGRAMS OF CALIFORNIUM

ONLY AUTHORIZED PERSONNEL MAY OPERATE THIS SOURCE

ALL REQUIREMENTS OF USAIRDC SOP 05 WILL BE FOLLOWED

1. A list of personnel authorized to operate this source is posted on the control console.

2. Obtain keys and interlock connector from key control officer. Keys to be issued only to authorized operators.

3. Set the 'Source On - Do Not Enter' light next to door.

4. Close and lock door to exposure room.

5. Install interlock connector on rear of control console; insert key into master switch on control console and turn on. (Make certain key to outside ladder is on the same key ring, and that the ladder control gate is locked.)

6. Set timer to desired exposure time.

7. Push irradiate button.

8. Check:

a. That the 'source moving' light is lighted until source is activated, then the irradiate light will come on the control console.

b. 'Interlocks' light on control console.

c. 'Source On - Do Not Enter' light next to door.

d. That visual warning lights within the exposure room are lighted.

9. Secure room 13 upon leaving the control area when the source is being operated in the unmoderated mode.

10. When source is turned off (either manually or by timer):

a. Check 'Off' light on control console.

b. Check 'Source On - Do Not Enter' light next to door.

c. Check visual warning lights inside the exposure room.

d. Check the neutron monitor or neutron survey meter.

11. Turn off control panel with key when through using source.

12. Lock the room and return the key and the interlock connector to key control officer.

Appendix E

INSTRUCTIONS FOR OPERATION OF
WILLISTON-ELIN MODEL 2001 (3-CURIE CESIUM-137)

ONLY AUTHORIZED PERSONNEL MAY OPERATE THIS SOURCE

1. A list of personnel authorized to operate this source is posted on the source container.

2. Obtain keys from key control officer. Keys to be issued only to authorized operators.

3. Unlock right door of irradiator for access to magazine racks.

4. Operate the irradiator in accordance with manufacturer's procedures.

5. Lock cabinet and room and return key to key control officer.

Appendix F

INSTRUCTIONS FOR OPERATION OF S94-1, PLUTONIUM SOURCE

ONLY AUTHORIZED PERSONNEL MAY OPERATE THIS SOURCE

1. Each of the disks from the S94-1 are used as calibration sources for our Gamma Products G-5000, Automatic Low-Background Counters located in room three.

2. The S94-1 disks will be stored in the isotope storage room (room seven) when not being used.

3. During handling, care will be taken to insure that the plated surface is not touched or scratched.

HEADQUARTERS
US ARMY IONIZING RADIATION DOSIMETRY CENTER
LEXINGTON, KENTUCKY 40511-5102

STANDING OPERATING PROCEDURE 03
US ARMY IONIZING RADIATION DOSIMETRY CENTER 18 August 1987

RADIOLOGICAL ACCIDENTS, INCIDENTS, OR FIRES

1. Purpose. To assign responsibilities and outline procedures to be followed in the event of a radiological accident, incident, or fire within the areas assigned to the US Army Ionizing Radiation Dosimetry Center (USAIRDC).

2. Scope. This procedure primarily is applicable to personnel in the USAIRDC. However, it also will apply to any personnel in an area where a radiological accident, incident, or fire occurs.

3. Policy. The safety of personnel shall be the prime consideration in any incident.

4. Responsibilities.

a. Chief, USAIRDC will:

(1) Establish and enforce a radiological safety program within all areas under his supervision.

(2) Assure that personnel receive training in all necessary phases of radiological safety.

(3) Supervise the decontamination of all personnel and areas involved in a radiation accident. This will include monitoring personnel and areas to determine the degree of contamination.

(4) Prepare a complete history of the accident or incident and decontamination procedures. Forward copies to:

This Sop supersedes USAIRDC SOP 03, 2 April 1982, and all changes.

(a) Commander, AMC (through Depot Commander for signature).

(b) Depot Commander.

(c) Each person involved.

(5) Conduct annual rehearsals of emergency procedures.

B. Immediate supervisor of area where accident or incident occurs will:

(1) Notify all personnel not involved in the spill to vacate the immediate area at once.

(2) Turn off all air-handling equipment, controlled by two switches located in the boiler room through door #13.

(a) Power panel #1, Breaker #10.

(b) General Electric 300 Line Control.

(3) If hands and clothing are protected, right the container to prevent further spillage.

(4) Flush contaminated skin areas thoroughly under running water.

(5) Discard contaminated clothing and dispose of as radioactive waste under the supervision of the RPO or his authorized representative.

(6) Notify the next higher supervisor and the RPO of the incident or accident.

NOTE: The urgency of the situation will dictate the sequence of actions indicated above. The safety of personnel involved will be the prime consideration in making the determination.

(7) Refer all injured personnel involved in the accident or incident to the depot Medical Officer in accordance with the provisions of LBAD-R 40-6.

(8) Supervise the decontamination of the area and personnel involved under the direction of the RPO.

5. Notification of personnel. In the event of a radiation emergency, the following USAIRDC personnel will be called, in the order listed.

a. Mr. A. Edward Abney, Chief, USAIRDC, RPO, Ext. 3249
Home address: Rt. 4, Box 464A, Berea, KY 40403
Home phone: 986-3595

b. Mr. Karl W. Swartz, Alternate RPO, Ext. 3646
Home address: 302 E. High Street, Lexington, KY 40507
Home phone: 253-2696

c. Mr. William R. Scrivner, Health Physicist, Ext. 3666
Home address: 101 Cardinal Lane, Richmond, KY 40475
Home phone: 624-9286

6. References.

a. DARCOMR 385-25, "Radiation Protection..."

b. LBAD-R 385-1, "LBAD Safety Program", Appendix D.

c. LBAD-R 385-14, "Radiological Safety Program".

d. LBAD-R 40-6, "Medical Procedures for Radiation Casualties."

7. Preparation. This SOP was prepared by William R. Scrivner, Health Physicist, Special Nuclear Services Branch, US Army Ionizing Radiation Dosimetry Center.

A. EDWARD ABNEY
Chief, US Army Ionizing
Radiation Dosimetry Center

APPROVED:
JOHN DORTON
Safety Director
LBAD

14 April 1989

APPENDIX D

INSTRUCTIONS FOR OPERATION OF
PLUTONIUM-BERYLLIUM NEUTRON SOURCE

1. The Plutonium-Beryllium (PuBe) source will only be used in the x-ray calibration room (room 6). When not in use, the PuBe source will be stored in the isotope storage room (room 7).

2. Procedures for use:

a. Obtain appropriate keys and move the PuBe storage container from room seven to room six.

b. CAUTION-Perform this step expeditiously. Unlock container and remove lid. Unscrew source holder and remove the tube containing the source. Place tube on a sheet of paper on the floor and remove the source using 18 inch tongs. DO NOT TOUCH SOURCE WITH ANY PART OF YOUR BODY. Place the PuBe source into the appropriate calibration jig. NOTE: All calibrations will be designed to maintain personnel exposures ALARA.

c. Set door interlock alarm. Insure that "Source On - Dot Not Enter" sign is lit.

d. When calibration exposure is complete, return source to the storage container. When the calibrations are completed, return the PuBe source to the isotope storage room. Perform a survey and dispose of paper.

3. Additional requirements:

a. All personnel working with or around the PuBe source will wear neutron dosimeters.

b. There will be no eating, drinking, smoking, or application of cosmetics in the x-ray calibration room. NOTE: This rule is enforced at all times, due to other sources stored in the room.

c. Calibration procedures will be practised with "dry" runs prior to using the PuBe source. This will insure that all equipment is operating properly prior to exposure.

d. A calibrated neutron survey meter will be available whenever the PuBe source is used.

A. EDWARD ABNEY
Chief, US Army Ionizing
Radiation Dosimetry Center

RECORD OF ENVIRONMENTAL CONSIDERATION

Title: Renewal for Source Material License SUB-417

Anticipated Date and/or Duration of Proposed Action: July 1989 thru July 1994.

It has been determined that the action qualifies for Categorical Exclusion #A-11, appendix A, AR 200-2, and no extraordinary circumstances exist as defined in paragraph 4-3, AR 200-2.

SIGNED _____

A. EDWARD ABNEY
Chief, US Army Ionizing
Radiation Dosimetry Center

DATE: 14 Apr 89

CONCURRENCE: _____

TERRY W. HAZLE
Environmental Coordinator

DATE: 25 Apr 89

IONIZING RADIATION CONTROL COMMITTEE APPROVAL

The Ionizing Radiation Dosimetry Center's license application for Nuclear Regulatory Commission License SNM-623 has been reviewed and approved by the following members of the Ionizing Radiation Control Committee. This license will be submitted to the full committee at the next meeting.

Committee Member	Office	Signature and Date
A. EDWARD ABNEY	IRDC	A. Edward Abney 20 Apr 89
RICHARD L. GARVER	Safety Office	Richard L. Garver 20 Apr 89
DAVID MOUNTS	ACRC	David M. Mounts 20 Apr 89
DEBORAH POYNTER	Safety Office	Deborah Poynter 20 Apr 89
LINDA BROWN	Safety Office	Linda H. Brown 20 Apr 89
MARGARET WORKMAN	MEDDAC	Margaret Workman RN 20 Apr
STEPHEN HOWARD	IRDC	Stephen H. Howard 20 Apr 89
M. DAVID SCOTT	RPO	M. David Scott 20 Apr 89