

Department of the Army
Headquarters, US Army
Field Support Command
1 Rock Island Arsenal
Rock Island, IL 61299-6500

*AFSC Regulation 11-1

3 Nov 04

Army Programs

RADIATION SAFETY PROGRAM

Applicability. This regulation applies to Headquarters (HQ) US Army Field Support Command (AFSC) and its subordinate elements.

Decentralized Printing. All installations may locally reproduce this regulation.

Supplementation. Supplementation is authorized with copy furnished to the proponent.

Proponent. The Safety/Radioactive Waste Directorate is the proponent. Users may send comments/recommendations to AMSFS-SF, HQ AFSC, 1 Rock Island Arsenal, Rock Island, IL 61299-6500, e-mail afsc-ofc-sf@afsc.army.mil.

Distribution. Approved for electronic distribution from <http://www.afsc.army.mil/im/rcdsmgt/pubs.htm>.

Superseded Publications. *IOCR 385-3, Radiation Safety Program, 2 Dec 99.

FOR THE COMMANDER:



D. Scott Welker
Chief of Staff

<u>Contents</u>	<u>Paragraph</u>	<u>Page</u>
Purpose -----	1	2
References -----	2	2
Explanation of Terms -----	3	2
Policy -----	4	2
Responsibilities -----	5	2
General -----	6	6
Appendix A. AFSC Radiation Safety Program Management Control Evaluation Checklist		

1. Purpose. This regulation prescribes AFSC policies and procedures to ensure the safe use, prudent management, and regulatory compliance of radiation sources.

2. References.

- a. AR 11-9, The Army Radiation Safety Program.
- b. AMC-R 11-48, Radiation Safety Program.
- c. CFR, Title 10, Parts 19 and 20.

3. Explanation of Terms. Definitions of technical terms in AR 11-9 apply to this document.

4. Policy. AFSC personnel involved in the procurement, storage, distribution, disposal, or use of radiation sources will comply with Nuclear Regulatory Commission (NRC) license conditions and applicable Federal, State, and Army radiation safety requirements.

5. Responsibilities.

- a. AFSC commander will:

(1) Be responsible for the AFSC Radiation Safety Program.

(2) Appoint, in writing, a Command Radiation Safety Officer (RSO) for AFSC.

(3) Establish a Radiation Safety Committee (RSC). The committee will meet annually or when directed by the chairman.

(4) Discharge those duties through the organizations listed below.

- b. AFSC Safety/Rad Waste Directorate (AMSFS-SF) will:

(1) Exercise staff supervision of the AFSC and the Joint Munitions Command (JMC) Radiation Safety Programs.

(2) Manage the Army Low-level Radioactive Waste (LLRW) Disposal Program worldwide. Direct the storage, packing, shipment, processing, recycle, and disposal of excessed radioactive and mixed waste materials. Maintain records of the Army LLRW Disposal Program, including radio nuclides, activities, quantities, generation points, disposition points, dates shipped, and dates disposed.

(3) Exercise staff supervision over the operational component for the Department of Defense (DOD) Executive Agent for LLRW. Represent the Army on the DOD LLRW Disposition Advisory Committee.

(4) Request, manage, renew, and terminate NRC licenses for JMC radioactive commodities.

(5) Prepare safety requirements involving radioactive materials and radioactive-producing sources for procurement work directives, solicitations, and contracts.

(6) Incorporate safety related instructions, cautions, and warnings based on hazards involved and regulatory requirements of radioactive items into technical literature after coordination with JMC G3, Deputy for Operations.

(7) Provide an Army Contaminated Equipment Retrograde Team (ACERT) capable of worldwide response to accidents/incidents involving the retrograde of radioactively contaminated equipment/commodities IAW AR 700-48, Management of Equipment Contaminated with Depleted Uranium or Radioactive Commodities.

c. AFSC RSO will:

(1) Advise and assist on issues involving radioactive items.

(2) Implement the command radiation safety program.

(3) Serve as the JMC RSO.

(4) Review existing and proposed radiological operations and procedures, field reports, test reports, and surveys to ensure compliance with radiation safety regulations.

(5) Verify NRC license compliance for JMC commodities worldwide. AFSC RSO or his representative will inspect storage installations with AFSC-licensed items IAW license requirements.

(6) Evaluate radiation safety programs at subordinate elements by:

(a) Assessing radiation operations.

(b) Reviewing the results of radiation safety related inspections.

(c) Reviewing RSC meeting minutes, dosimetry results, annual audit reports and radiation source inventories, and report significant results to the AFSC RSC.

(d) Monitoring Army radiation permits (ARPs).

(e) Evaluating Army radiation authorizations (ARAs).

(7) Manage the disposal of excessed/waste radioactive material.

d. AFSC Surgeon will provide medical information concerning potential health hazards of radioactive material.

e. AFSC PARC/Contracting Center (AMSFS-CC) will:

(1) Identify contracts for purchase of radioactive items as a hazardous materials contract. Include contract clauses for safety, radiation surveys, transportation, product assurance acceptance, and disposal of radioactive materials in the solicitation. Ensure the performance of a pre-award safety survey.

(2) Coordinate with the RSO for all new and renewal contracts involving radioactive material.

(3) Have a surveillance plan during contract performance to ensure that the contractor maintains a radiation safety program.

f. JMC commander will support the AFSC Radiation Safety Program by accomplishing the following:

(1) Notify the RSO of planned programs involving radioactive material; e.g., new items coming into the inventory, new storage locations, demilitarization, and maintenance.

(2) Coordinate with the RSO to ensure that technical publications and instructions to the user include specific instructions on handling, storing, and disposal of radioactive items.

(3) Provide wholesale and retail inventory information on NRC-licensed JMC commodities to the RSO upon request.

(4) Maintain historic records of total quantities of radioactive items managed within the wholesale system. Records should indicate quantities procured, issued, sold, and disposed.

Retain such records for 10 years, and provide a summary of the records to the RSO upon removal of the items from DOD inventory.

(5) Provide input to the RSO for timely preparation of the NRC license application for JMC commodities.

(6) Enforce compliance with NRC license conditions for JMC commodities.

(7) Coordinate inspection and test requirements for JMC radioactive commodities with the RSO.

(8) Provide the RSO the results of wipe tests of NRC-licensed JMC commodities.

(9) Provide information to assist in the development of environmental documentation for NRC license actions.

(10) Coordinate with the RSO to determine disposition of radioactive materials.

(11) Staff foreign military sales (FMS) cases involving the sale of radioactive material through the RSO.

(12) Coordinate radioactive material transportation issues with the RSO.

(13) Notify the RSO of accident/incidents involving radioactive material at JMC installations.

g. Subordinate elements using/possessing radioactive material will:

(1) Comply with applicable Federal, State, DOD, Army standards, and more specifically with procedures in AMC-R 11-48, paragraph 4i.

(2) Furnish a copy of all new ARPs to the AFSC RSO.

(3) For Government-owned, Government-operated (GOGO) installations/operations, coordinate all new applications and/or amendments to NRC licenses and ARAs through the AFSC RSO to AMC.

(4) Provide the AFSC RSO a copy of the annual radiation sources inventory.

(5) Provide the AFSC RSO a copy of the minutes recorded from the local RSC meetings.

(6) Immediately (upon discovery), notify the AFSC RSO of all actual or suspected incidents of radiation overexposures or personnel contamination above permissible levels.

(7) Promptly, within 4 working days, notify the AFSC RSO of all items of noncompliance with NRC and/or Department of the Army radiation standards, regulations, and policies.

(8) Provide AFSC RSO early notification of any outside inspection and the results conducted on the local radiation safety program with an eventual copy of the inspection report.

6. General.

a. Training.

(1) All personnel will receive initial and periodic training on radiation safety commensurate with their duties. Some NRC licenses contain specific training requirements.

(2) RSOs and alternate RSOs will receive a minimum of 24 hours of training in radiation safety every 2 years.

(3) For Government-owned, contractor-operated (GOCO) installations/operations, training will be conducted IAW contract requirements.

b. Annual audit. Evaluate annually the local radiation safety program using the management control checklist in Appendix A. Provide a copy of the results to the AFSC RSO. External audits/inspections of the installation/operation program can also meet the intent of this paragraph. External audits/inspections may only evaluate a portion of the program. If so, the remainder of the local radiation safety program will require annual audit.

c. RSC.

(1) For HQ AFSC and HQ JMC, the Chief of Staff will chair the annual RSC meeting. The AFSC RSO will chair all other working RSC meetings.

(2) Subordinate elements will have an RSC IAW AR 11-9.

Appendix A

AFSC RADIATION SAFETY PROGRAM
MANAGEMENT CONTROL EVALUATION CHECKLIST

Function. This checklist covers the AFSC Radiation Safety Program.

Purpose. The purpose of this checklist is to assist commanders and managers in evaluating the key management controls outlined below.

Instructions. Base answers on the actual testing of key management controls; e.g., document analysis, direct observation, interview, sampling, simulation, or other testing. "No" answers require explanations and statements of corrective actions taken. Management must formally evaluate these controls annually. For certification of the evaluation, use of DA Form 11-2-R (Management Control Evaluation Certification Statement) is mandatory.

1. ADMINISTRATION AND MANAGEMENT.

a. Have the Radiation Safety Officer (RSO) and alternate RSO been designated in writing? (Reference: AR 11-9, paragraph 1-4j(1), 1.4k(1); AMC-R 11-48, paragraph 4.i(2); AR 40-5, paragraph 9-4b(1))

b. Has a Radiation Safety Committee (RSC) been established and meetings held periodically? (Reference: AR 11-9, paragraphs 1.4j(2), 1.6c, and 1-7a)

c. Has a written radiological safety program been established? (Reference: AR 11-9, paragraphs 1.4.k(2),(5); AMC-R 11-48, paragraph 4.i(1))

d. Have adequate SOPs been developed for operations involving the possible exposure to radiation? (Reference: AR 11-9, paragraph 1-4.k(2)(a))

e. Are emergency procedures included in the local SOP, and are responses to credible emergencies preplanned and rehearsed periodically? (Reference: AR 11-9, paragraph 1-4o(2))

2. NUCLEAR REGULATORY COMMISSION (NRC) LICENSES/ARMY RADIATION AUTHORIZATIONS (ARA) AND/OR ARMY RADIATION PERMITS (ARP).

a. Are the radioactive materials on post covered by an applicable NRC license and/or corresponding ARA or ARP?

Appendix A (cont)

b. Is the license/ARA/ARP up-to-date (check expiration date, personnel, locations, inventory, etc)?

c. Is the installation complying with conditions set in the license/ARA/ARP?

3. DOCUMENTATION.

Are the following documents maintained: physical inventories of radioactive materials, radiation survey records, SOPs, leak test records (if necessary), minutes of RSC meetings? (Reference: AMC-R 11-48, paragraph 4.i(12); AR 11-9, paragraphs 1-4.k(4) and 1-7; 10 CFR 20.2103)

4. TRAINING.

a. Has the RSO and alternate RSO received training commensurate with their responsibilities? (Reference: AMC-R 11-48, paragraph 4.i(4))

b. Have all radiation workers received training commensurate with their duties and responsibilities? (Reference: AR 11-9, paragraph 1.4k(3); 10 CFR 19.12(a))

c. Are records available listing current resume of the RSO, rosters of training provided by the RSO, and outlines of any training provided to workers or visitors?

5. DOSIMETRY.

a. Have DD Forms 1141 (Record of Occupational Exposure to Ionizing Radiation) and DD Forms 1952 (Dosimeter Application and Record of Occupational Radiation Exposure) or equivalents been prepared and maintained for each radiation worker? (Reference: AR 11-9, paragraph 5-2d; AR 40-5, paragraph 9-6a(5); 10 CFR 20.2104)

b. Does the RSO review the radiation exposure from ionizing radiation of individuals enrolled in the dosimetry program quarterly or as required? (Reference: AR 40-5, paragraph 9-6a(5))

c. Are procedures established for centralized issue and control of dosimetry devices?

Appendix A (cont)

6. INSTRUMENTATION/SURVEYS.

a. Have all radiation-detecting instruments been calibrated at least annually? (Referenced: 10 CFR 20.1501(b); AR 11-9, paragraph 2-8)

b. Are calibrated instruments always available, and are they calibrated at least annually? (Reference: AR 11-9, paragraph 2-8)

c. Are sealed sources leak tested per license requirements?

d. Are health physics surveys being made and documented of storage and use areas at the frequency listed in the license/RA/ARP regulation (usually quarterly for storage and monthly for use)? (Reference: AR 40-5, paragraph 9-9b(3))

e. Are work/storage areas posted with Caution Radioactive Material signs? Are containers labeled to show the presence of radioactive material? Are copies of the following posted in work/storage areas: 10 CFR 19 and 20, NRC license, SOPs, NRC Form 3? Is a list of designated individuals with telephone numbers for emergency notification posted outside of radioactive control areas? (Reference: 10 CFR 19.11, 20.1901, 1902, 1904; AR 11-9, paragraph 5-2f; AR 40-5, paragraph 9-9a(e))

f. Has the use or storage of eating, drinking, chewing, smoking, and cosmetic materials in the immediate areas containing radioactive material been prohibited and enforced? (Reference: 10 CFR 20.1101(b); AR 40-5, paragraph 9-9b(4))

7. INDUSTRIAL RADIOGRAPHY.

a. Are areas properly posted? Caution Radioactive Material for areas containing sources. Caution Radiation Area or Caution High Radiation Area for areas with appropriate dose rates. (Reference: 10 CFR 20.1901, 1902)

b. Does each person who enters a high radiation area wear both a thermo luminescent dosimeter (TLD) and pocket dosimeter? (Reference: 10 CFR 20.1502)

c. Are proper warning devices (lights, buzzers) and safety equipment (interlock, panic buttons, limiting devices) in place and operating properly? (Reference: 10 CFR 20.1601, 1602)