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Medical Command

RADIOACTIVE MATERIALS (RAM) MANAGEMENT

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This instruction implements Air Force Policy Directive (AFPD) 40-2, *Radioactive Materials (Non-Nuclear Weapons)* IAW Title 42 of the United States Code (42 U.S.C.), **Chapter 23**, *Development and Control of Atomic Energy*; Title 10 of the Code of Federal Regulations (10 CFR) Chapter I *Nuclear Regulatory Commission*; and the conditions of the US Air Force Master Materials License (MML) issued by the US Nuclear Regulatory Commission (NRC) and managed by the US Air Force Radioisotope Committee (RIC). It applies to all US Air Force personnel including members of the Air Force Reserve and Air National Guard (ANG). It further applies to all Department of Defense (DOD), Department of Energy (DOE), contractor and other activities using, storing, or transporting radioactive material (RAM) on any US Air Force (USAF) owned or leased property. It instructs personnel on procedure for the acquisition, receipt, security, use, storage, transfer, transport, distribution, and disposal of all RAM in the USAF. It

prescribes how non-USAF activities get approval to use, store, or transport RAM on USAF installations. RAM covered by this instruction includes, without limitation, NRC licensed and exempted nuclear materials, sealed sources and devices involving source material, special nuclear material (SNM), and byproduct material as defined by the NRC and 10 CFR Chapter I. Since the 1 October 2007 publishing of the *Requirements for Expanded Definition of Byproduct Material*, Final Rule, in the Federal Register, NRC regulation of naturally occurring and accelerator-produced material (NARM) as byproduct material includes "commercial, medical, and research [but not military-unique] activities" involving "discrete source[s] of radium-226"; "material made radioactive by use of a particle accelerator"; and certain other "discrete source[s] of naturally occurring radioactive material, other than source material". This AFI does not, unless specifically stated otherwise in this or other directive AF publications, apply to nuclear reactor programs, nuclear weapons systems or waste, or other RAM controlled under Section 91 of the Atomic Energy Act (AEA) of 1954, or 42 U.S.C. §2121, *Authority of Commission*, as such items are typically covered by AFPD 91-1, *Nuclear Weapons and Systems Surety*, and subordinate instructions managed by the Air Force Safety Center (AFSEC). Exception: Explicitly stated within this AFI, or directive publications subordinate to AFPD 91-1, are a few limited and specific applications of this AFI to RAM controlled under AEA Section 91 and AFPD 91-1. Civilian USAF employees are subject to administrative disciplinary action, in addition to any applicable criminal or civil sanctions for the violation of requirements and prohibitions contained in this instruction. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the publication Office of Primary Responsibility (OPR) for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). This publication may be supplemented at any level, but direct Supplements must not contain conflicting material or less restrictive guidance. Refer recommended changes and questions about this publication to the OPR using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command to the Air Force Medical Support Agency/Bioenvironmental Engineering Division (AFMSA/SG3PB), 7700 Arlington Blvd., Falls Church, VA 22041. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

(45SW) Air Force Instruction (AFI) 40-201, *Radioactive Materials Management*, 17 September 2014, Incorporating Change 1, 17 December 2015, is supplemented as follows. The AFI is published word-for-word without editorial review. This instruction incorporates other radiation programs in addition to managing radioactive materials and describes local policies that implement radiation program requirements directed by AFI 40-201, *Radioactive Materials Management*, AFI 48-109, *Electromagnetic Field Radiation (EMFR) Occupational and Environmental Health Program*, AFI 48-139, *Laser and Optical Radiation Protection Program*, and AFI 48-148, *Ionizing Radiation Protection*. . This supplement applies to Patrick AFB, Cape Canaveral AFS, downrange sites and all units assigned to the 45th Space Wing. Comply with

AFI 33-332, Air Force Privacy Act Program, for documents containing Privacy Act information. Comply with DoD Regulation 5200.1-R, Information Security Program, for documents containing For Official Use Only information. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. This publication may not be supplemented or further implemented/extended. Submit requests for waivers through the chain of command to the to the Publication OPR compliance items.

SUMMARY OF CHANGES

This interim change clarifies some of the directive requirements found in this AFI, implements an administrative change from "A4/7" to "A4", changes AFLOA status from voting member to non-voting advisor for the Radioisotope Committee (RIC), adds an AF definition to the terms in Attachment 1 for "radiation worker", and emphasizes enforcement of reporting timeliness and root cause analysis (RCA) with respect to incidents. References throughout to "A4/7" are hereby changed to "A4".

Administrative Changes to AFI 40-201, *Radioactive Materials (RAM) Management*:

References throughout to "A4/7" are hereby changed to "A4". References throughout to "A7C" are hereby changed to "A4C". References throughout to "A7CAN" are hereby changed to "A4CE". References throughout to "AFI 24-210 (I)" are hereby changed to "AFMAN 24-210". References throughout to "AFMAN 24-204 (I)" are hereby changed to "AFMAN 24-204".

(45SW) This document has been substantially revised and must be completely reviewed. Major changes include removing the "Radiation Use Authorization (RUA)" requirements. Contractors and private-sector entities may still be required to maintain RUAs as identified by NASA, Kennedy Space Center, and/or Florida State rules and regulations, as applicable. 45 SW units and mission partners should review the applicable Air Force Instructions for program requirements, to include AFI 40-201, AFI 48-109, AFI 48-139, and AFI 48-148.

Chapter 1

PROGRAM OVERVIEW

1.1. Overview.

1.1.1. This instruction provides uniform policy, instruction, and guidance for the management and control of radioactive material (RAM) in the USAF world-wide. It sets forth how USAF personnel or units manage (to include acquire, receive, use, store, transfer, transport, distribute, and dispose of) all RAM not expressly excluded from the purview of this AFI. This instruction also prescribes how non-USAF entities get approval to use, store, and transport RAM on USAF installations.

1.1.2. Applicability. RAM covered by this instruction includes, without limitation, source material, special nuclear material (SNM), and byproduct material including discrete naturally-occurring or accelerator-produced material (NARM). This AFI does not, unless specifically stated otherwise in this or other directive AF publications, apply to nuclear reactor programs, nuclear weapons systems or waste, or other RAM controlled under Section 91 of the Atomic Energy Act (AEA) of 1954, or 42 U.S.C. §2121, *Authority of Commission*, as such items are typically covered by AFPD 91-1, *Nuclear Weapons and Systems Surety*, and subordinate instructions managed by the Air Force Safety Center (AFSEC). Exception: Explicitly stated within this AFI, or directive publications subordinate to AFPD 91-1, are a few limited and specific applications of this AFI to RAM controlled under AEA Section 91 and AFPD 91-1. The handling of Section 91(b) waste from operations involving nuclear munitions maintenance is discussed in context within AFI 91-108, *Air Force Nuclear Weapons Intrinsic Radiation and 91(B) Radioactive Material Safety Program*.

1.1.3. Objectives. The objectives of this AFI are to:

1.1.3.1. Ensure the proper acquisition, possession, security, storage, use, transfer, disposal and transportation of RAM covered by this instruction.

1.1.3.2. Establish a unified approach to the management and safeguarding of RAM used by the USAF, contractors, and other entities working on USAF installations world-wide.

1.1.3.3. Implement a unified policy for authorizing the acquisition, possession, storage, use, transfer, disposal and transportation of RAM world-wide.

1.1.4. Regulatory Authority for Radioactive Materials (RAM). This instruction implements NRC requirements across the USAF. It also sets requirements for USAF-owned RAM not under the jurisdiction of the NRC. The NRC is the primary regulatory authority for USAF use of RAM in the United States. In locations outside of the United States and its territories, the requirements in this instruction apply, so long as the requirements do not conflict with applicable requirements from any of the following: international agreements, the Overseas Environmental Baseline Guidance Document (OEBGD), country-specific Final Governing Standards (FGS), Geographic Combatant Command policy, and environmental annexes to operational orders (OPORDS), operational plans (OPLANS) or other operational directive. International Atomic Energy Agency (IAEA) Safety Standards and other publications may be considered where appropriate.

1.1.5. US Nuclear Regulatory Commission (NRC) Regulatory Authority. The AEA of 1954, as amended (including the Energy Policy Act of 2005), and the Energy Reorganization Act of 1974 (Public Law 93-438), grant the NRC the authority to regulate byproduct material, discrete NARM, source material, and SNM for peaceful applications IAW42 U.S.C. §2011, *Congressional Declaration of Policy*, et seq. This authority does not extend to material described in Section 91 of the AEA (1954), or 42 U.S.C. §2121.

1.1.5.1. NRC authority extends across the United States, its possessions and territories and Puerto Rico. For regulations issued and enforced by the NRC, reference Title 10 of the Code of Federal Regulations (CFR) Chapter I *Nuclear Regulatory Commission*.

1.1.5.2. The NRC maintains regulatory authority over Federal agency licensees regardless of location within the United States.

1.1.6. USAF Regulatory Authority:

1.1.6.1. Authority for USAF receipt, storage, internal distribution, use, transfer, and disposal of byproduct, discrete NARM, source, and limited quantities of SNM is granted through a Master Materials License (MML) issued to the USAF by the NRC. This instruction prescribes requirements for USAF compliance with the MML and other applicable regulatory requirements.

1.1.6.2. The USAF also maintains authority over the use of RAM by non-USAF organizations on USAF installations where exclusive Federal jurisdiction exists. This AFI requires tenant organizations operating under a non-USAF permit, NRC license, or DOE license exemption to coordinate with the installation radiation safety officer (IRSO) on legal documentation, location, quantity and movement onto and across USAF-occupied real estate for RAM exceeding NRC exempt quantities and not falling under Section 91 of the AEA (1954). Non-USAF tenant organizations are not subject to AFIA/SG inspections.

1.1.6.3. Authority for USAF receipt, use, storage, distribution and disposal of Section 91(a) and 91(b) material is covered under AFPD 91-1, AFI 91-108, and AFI 91-110, *Nuclear Safety Review and Launch Approval for Space or Missile Use of Radioactive Material and Nuclear Systems*.

1.1.6.4. USAF activities outside the US follow applicable laws and regulations of the host country concerning import, export, control, and disposal of RAM according to the Status of Forces Agreement (SOFA), or similar document, with the host country. This AFI requires radiation safety standards and requirements followed by USAF organizations to be at least as stringent as those within the US. It also requires USAF installations located within the host nation to honor contractor host nation licenses for using RAM in like manner as an NRC or Agreement State License and otherwise IAW the SOFA. IAEA Safety Standards and other publications may be considered where appropriate.

1.1.7. Resource Conservation and Recovery Act (RCRA). RCRA authorizes the Environmental Protection Agency (EPA) to develop and enforce regulations governing the cradle to grave management of hazardous waste. These regulations are found in Title 40 of the Code of Federal Regulations (40 CFR) Chapter I *Environmental Protection Agency*. For purposes of RCRA, take note of the following definition: Low-Level Mixed Waste (LLMW)

is waste that contains both low-level radioactive waste and RCRA hazardous waste. Low-Level Radioactive Waste (LLW) is a radioactive waste which contains source, special nuclear, or byproduct material and is not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material. Mixed Waste (MW) means waste that contains both RCRA hazardous waste and source, special nuclear, or byproduct material. As such, MW is subject to dual regulation under EPA and NRC rules. However, 40 CFR Part 266 *Storage, Treatment, Transportation, and Disposal of Mixed-Waste*, Subpart N (Part(s) 266.210 – 266.310), provides for conditional exemption from RCRA coverage for LLMW storage, treatment, transportation and disposal so long as the LLMW meets the Subpart N requirements.

1.1.7.1. Solid low level radioactive waste (LLRW) includes quantities of byproduct, source and SNM. They also may contain NARM, and they too may fall within the definition of hazardous waste as set out in 40 CFR Part 261 *Identification and Listing of Hazardous Waste*.

1.1.7.2. Waste that contains both AEA-regulated RAM and hazardous waste (as defined by 40 CFR 261.3) is termed mixed waste (40 CFR 266.210).

1.1.7.2.1. The NRC regulates the byproduct, source, and SNM constituents.

1.1.7.2.2. EPA regulates the hazardous chemical and non-NRC regulated constituents.

1.1.7.2.3. Neither agency has exclusive jurisdiction over mixed waste under current Federal law.

1.1.7.2.4. Generators of mixed waste fall under the authority of both NRC and EPA regulations unless exempted by those regulations. Refer to 40 CFR Parts 261 and 266, Subpart N; AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*; AFPD 32-70, *Environmental Quality*, and subordinate publications; and AFPD 48-1, *Aerospace Medicine Enterprise*, and subordinate publications, for guidance on USAF compliance with EPA hazardous materials regulations.

1.1.8. Clean Air Act (CAA). The CAA gives the EPA authority over non-NRC regulated radionuclide emissions from Federal facilities. For applicable regulations, reference 40 CFR Part 61, Subpart I, *National Emission Standards for Radionuclide Emissions from Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities Not Covered by Subpart H*. NRC regulates air emissions from NRC licensed Federal facilities IAW 10 CFR 20.1101(d). Organizations that generate emissions fall under the authority of both NRC and EPA rules. For guidance on complying with EPA air emission standards, refer to AFPD 32-70 and AFI 32-7040, *Air Quality Compliance and Resource Management*.

1.1.9. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Section 103 of CERCLA requires notification of the National Response Center immediately at 1-800-424-8802 in the event a release of greater than the reportable quantity of a hazardous substance is released to the environment. A list of applicable reportable quantities for radionuclides can be found in 40 CFR 302.4, Appendix B-*Radionuclides*. Note: Installation Civil Engineering (CE) in coordination with the IRSO and the Installation

Commander should notify the National Response Center; the IRSO in coordination with CE and the Installation Commander should notify the RICS which will in turn notify the NRC.

1.1.10. Emergency Planning and Community-Right-To-Know-Act (EPCRA). EPCRA requires that whenever a reportable quantity of a CERCLA hazardous substance leaves installation boundaries, the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) must be notified immediately (40 CFR Part 355, *Emergency Planning and Notification*). Note that EPCRA is not, by its terms, applicable to Federal facilities. The USAF complies with EPCRA, as directed by Executive Order 13514 (October 5, 2009). Note: Installation CE in coordination with the IRSO and the Installation Commander should notify the SERC and LEPC; the IRSO in coordination with CE and the Installation Commander should notify the RICS which will in turn notify the NRC.

1.1.11. Transportation of Hazardous Material (HAZMAT). The Department of Transportation (DOT) specifies requirements for marking, labeling, shipping documents, containers, and other requirements when shipping or transporting hazardous materials (HAZMAT), including RAM, IAW Title 49 of the United States Code (49 U.S.C.), **Chapter 51**, *Transportation of Hazardous Material*, and Title 49 of the Code of Federal Regulations (49 CFR) Chapter I *Pipeline and Hazardous Materials Safety Administration*. In the USAF, the logistics (A4) community ensures the appropriate handling, packaging and certification of RAM shipments IAW Defense Transportation Regulations (DTR) 4500.9-R-Part II, **Chapter 204**, *Hazardous Material*, and **Chapter 208**, *Packaging and Handling*; AFI 24-210 (I), *Package of Hazardous Material*; Air Force Joint Instruction (AFJI) 23-504, *Radioactive Commodities in the DOD Supply System*; Air Force Joint Manual (AFJMAN) 23-209, *Storage and Handling of Hazardous Materials*; AFMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*; and International Air Transport Association (IATA), *Dangerous Goods Regulation*. IAEA Safety Standards, including *Regulations for the Safe Transport of Radioactive Material*, and other publications may be considered where appropriate. Note: Acknowledging CERCLA Reportable Quantities is a component of HAZMAT transportation requirements.

1.1.12. Radioactive Material Licensing Categories. This instruction stipulates that all RAM (with the exception of 91(a) and 91(b) material) will be regulated using the policies and procedures in this instruction and in the MML as identified in paragraph 1.1.6.

1.1.12.1. Specifically Licensed RAM. Many activities with RAM require a specific license with the NRC whereby detailed information is provided on the activity, RAM involved, organization, responsible radiation safety officer, etc. In a similar manner, the USAF issues specific permits for these activities accomplished with NRC-licensed materials within the USAF. Most USAF permits are template types, which are those issued for devices or applications that pose little radiological risk and employ standardized permit conditions. USAF non-template permits are for activities or applications that pose higher radiological risks and those that do not employ standardized permit conditions.

1.1.12.2. Generally Licensed Devices (GLDs) containing RAM. The Code of Federal Regulations provides a general license for the use of RAM contained in certain products. This allows persons to receive and use devices containing these radioactive materials if the device has been manufactured and distributed IAW a specific license issued by the

NRC or by an Agreement State. Most GLDs possessed by USAF units/organizations do not require permits, though the USAF does permit some GLDs, as described in this instruction. If a permit is not required by the USAF for a particular device, this instruction lists other requirements for the possessing unit/organization, the most important of which is the need to enter GLDs in the Radioactive Materials Management Information System (RAMMIS).

1.1.12.3. Exempted RAM. Certain concentrations or quantities of RAM are exempt from specific and general licensing requirements of the NRC. USAF units/organizations have restrictions on the disposition of exempt quantities of RAM, as detailed in this instruction and 10 CFR 30.70, Schedule A, or 30.71, Schedule B.

1.2. USAF Acceptance, Transfer, Storage, or Use of Radioactive Materials. This AFI requires all USAF units to accept, transfer, store or use RAM excluding 91(b) nuclear systems IAW this instruction, RAM permit conditions, and RICS guidance.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. The Assistant Secretary of the Air Force for Installations, Environment and Logistics (SAF/IE) shall:

2.1.1. Appoint one voting representative and one alternate from SAF/IEE to the USAF Radioisotope Committee (RIC).

2.1.2. Provide guidance, direction and oversight of all matters pertaining to the formulation, review and execution of plans, policies, programs and budgets relative to USAF activities involving installations, the environment, and logistics. This includes environmental, safety, and occupational health (ESOH) policies, plans, programs and budgets.

2.1.3. Delegate the authority to the Air Force Surgeon General (AF/SG) and the USAF Radioisotope Committee (RIC) to take all actions needed to ensure regulatory compliance and risk management for operations involving radioactive materials (RAM) including source material, special nuclear material (SNM) and byproduct material; this excludes items falling under Section 91 of the Atomic Energy Act (AEA) of 1954 but includes naturally-occurring and accelerator-produced radioactive material (NARM). This includes compliance with 42 U.S.C. **Chapter 23**, *Development and Control of Atomic Energy*; 10 CFR Chapter I; DOD publications in the 6055 series; the Master Materials License (MML) issued to the Department of the Air Force by the NRC; and, all other applicable Federal and DOD laws, regulations, and guidance.

2.1.4. Provide financial assurance to the USAF Radioisotope Committee Secretariat (RICS), for submittal to the NRC on all applicable USAF decommissioning activities, IAW 10 CFR 30.35 and 30.36 (byproduct material), 40.36 (source material) and 70.25 (licensed special nuclear material).

2.1.5. Ensure the delegation of authority for assuring RAM management IAW 10 CFR Chapter I, and the MML, from the Secretary of the Air Force (SECAF) to AF/SG and the RIC, is fully and accurately reflected in AFPD 40-2, *Radioactive Materials (Non-Nuclear Weapons)*, and Headquarters Air Force Mission Directive (HAFMD) 1-48, *The Air Force Surgeon General*.

2.2. The Assistant Secretary of the Air Force for Acquisition (SAF/AQ) shall:

2.2.1. Appoint one non-voting technical advisor, and one alternate, from the environment, safety and occupational health (ESOH) domain of the Air Force Human Systems Integration Office (AFHSIO) to the RIC.

2.2.2. Ensure Acquisition Program Managers (PMs) coordinate approval with the RICS, prior to acquisition of new systems and upgrades that contain RAM prior to fielding in the USAF.

2.3. The Surgeon General of the Air Force (AF/SG) shall:

2.3.1. On behalf of the Department of the Air Force, manage the control of RAM within the purview of this AFI and the MML.

2.3.2. Maintain and sustain the RIC and RICS, under the Assistant Surgeon General, Health Care Operations (AF/SG3/5), to provide oversight for use of RAM in the USAF.

2.3.3. Direct AF/SG3/5 to appoint a Chair to the RIC from the AF Medical Support Agency's Aerospace Medicine Division (AFMSA/SG3P) and to maintain a RICS within AFMSA's Bioenvironmental Engineering (AFMSA/SG3PB) Radiation Health function. The RICS is a dedicated operational body, within the Radiation Health function, required by the MML.

2.3.4. Select a health physics consultant who shall be the Chief of the RICS and a voting member of the RIC. Reference AFI 44-104, *Military and Civilian Consultant Program and Medical Enlisted Career Field Manager Program*.

2.3.5. Select a medical physicist consultant who shall be a voting member of the RIC. Reference AFI 44-104.

2.3.6. In coordination with the Air Force Inspection Agency (AFIA), provide for inspections prescribed by this instruction to evaluate compliance with permits issued by the RICS.

2.3.7. Authorize and empower the RIC and RICS to take enforcement action against a RAM Permittee who fails to comply with this instruction, a permit, or Federal regulations as executed by the RICS.

2.3.8. Provide required resources to the RICS to protect the interests of the MML and remain in compliance with applicable NRC and other Federal regulations, DOD instructions, and applicable and relevant guidance documents.

2.4. The Deputy Chief of Staff for Logistics, Installations, and Mission Support (AF/A4) shall:

2.4.1. Appoint one voting representative and one alternate from among the staff of AF/A4L, AF/A4M, AF/A4C or AF/A7S to the RIC who can represent civil engineering (CE), logistics readiness, security forces, supply, transportation, and aircraft and missile maintenance.

2.4.2. Coordinate on CE, logistics readiness, security forces, supply, transportation, and aircraft and missile maintenance policies dealing with RAM covered by this instruction.

2.4.3. Provide guidance to Air Force Material Command (AFMC) on the management of items containing RAM.

2.4.4. Maintain a USAF Radioactive Waste Site Registry.

2.4.5. Direct USAF-wide RAM transportation IAW with 49 U.S.C. **Chapter 51**, 49 CFR Chapter I, DTR 4500.9-R-Part II **Chapters 204** and 208, AFI 24-210 (I), AFJI 23-504, AFJMAN 23-209, AFMAN 24-204, IATA *Dangerous Goods Regulation*; and this AFI.

2.4.6. Support the implementation of safety and security measures which in addition to general radiation protection shall include the timely reporting of defects and noncompliance IAW 10 CFR Part 21 *Reporting of Defects and Noncompliance* as well as the physical protection of NRC Category 1 and Category 2 sources, requiring increased controls and national tracking, and/or quantities of radioactive materials requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR Part 37 Appendix A, 10 CFR Part 20 Appendix E, and 10 CFR 30.72 Schedule C, respectively). Local mission support, security, and maintenance personnel will work with Permit RSOs

(PRSOs) and the Installation Radiation Safety Officer (IRSO) who will in turn interface with the RICS which will in turn interface with the NRC as required. (T-1)

2.5. The Assistant Surgeon General, Health Care Operations (AF/SG3/5), shall:

2.5.1. Provide operational control (OPCON) over the RICS, as a duty of the Radiation Health function of the AFMSA, to work on behalf of the RIC in providing functional oversight of non-nuclear weapons related RAM use in the USAF.

2.5.2. Chair, or delegate a chair to the RIC. Authorize the Chief of the RICS to act in the Chairperson's absence.

2.5.3. Appoint one voting representative and one alternate, both health physics specialists, from the Radiation Health function of AFMSA/SG3PB to the RIC.

2.5.4. Appoint one voting representative and one alternate from the Occupational and Environmental Health function of AFMSA/SG3PB to the RIC.

2.5.5. Ensure the delegation of authority for assuring RAM management IAW 10 CFR Chapter I, *Nuclear Regulatory Commission*, and the MML, from the Secretary of the Air Force (SECAF) to AF/SG and the RIC, is fully and accurately reflected in AFPD 40-2, and Headquarters Air Force Mission Directive (HAFMD) 1-48, *The Air Force Surgeon General*.

2.6. The Commander, Air Force Inspection Agency (AFIA), on behalf of The Inspector General (SAF/IG), shall:

2.6.1. Appoint one voting representative to the RIC from AFIA/SG. Resources and prioritizes inspections according to this instruction and in coordination with the RICS and NRC.

2.6.2. Maintain a staff qualified health physicist (or Bioenvironmental Engineer equivalent) with appropriate NRC training and security clearance, to conduct USAF RAM permit and Section 91(b) RAM permit inspections.

2.6.3. Budget for and conducts inspections to assess Permittee compliance with the terms and conditions of permits authorizing the use and possession of RAM (reference Attachment 6).

2.6.4. Distribute inspection schedules and reports concerning permit compliance according to AFI 90-201, *The Air Force Inspection System*, to the RICS or AFSEC/SEW, as appropriate.

2.6.5. Send inspection reports pertaining to NRC regulated materials to the Permittee, the RICS and NRC Region IV.

2.6.6. Provide the RIC with quarterly and annual summaries of the status of permit compliance inspections, results of completed inspections and trends in violations.

2.6.7. Consult with the RICS on permit inspection policies and methods. Notifies them immediately when an NRC Severity Level I-III, or higher, violation is suspected or issued.

2.6.8. Conduct an inspection within 60 days of the termination of a broad scope permit.

2.6.9. Conduct Special Emphasis Item inspections upon request of the RICS.

2.6.10. Inspect USAF compliance with laws and regulations governing RAM transportation. References include but are not limited to DTR 4500.9-R-Part II **Chapters 204** and 208, AFI 24-210 (I), AFJI 23-504, AFMAN 24-204, IATA *Dangerous Goods Regulation*, and this AFI.

2.7. The Commander, Air Force Safety Center (AFSEC), on behalf of The Chief of Safety (AF/SE), shall:

2.7.1. Appoint one voting representative and one alternate from AFSEC/SEW to the RIC to advise on RAM control issues relative to AEA (1954) Section 91 materials, for consistent control of RAM within the USAF, IAW AFPD 91-1, AFI 91-108 and AFI 91-110.

2.8. The Commander, Air Force Legal Operations Agency (AFLOA), on behalf of The Judge Advocate General (AF/JA), shall:

2.8.1. Appoint one non-voting legal advisor and one alternate from AFLOA/JAC to the RIC.

2.8.2. Coordinate on legal issues involving RAM, including internal and external enforcement matters, and acts as counsel to the RIC.

2.9. The Commander, Air Force Medical Support Agency (AFMSA), on behalf of AF/SG, shall:

2.9.1. Provide administrative control (ADCON) and support for a Radiation Health function for the establishment and implementation of AF Medical Service (AFMS) policy on all forms of radiation. The RICS is a component of the Radiation Health function of AFMSA/SG3PB.

2.10. The Commander, US Air Force School of Aerospace Medicine (USAFSAM/CC) shall:

2.10.1. Appoint one voting representative and one alternate from USAFSAM/OE to the RIC. (T-1)

2.10.2. Support MAJCOMs and installations by maintaining and providing National Voluntary Laboratory Accreditation Program-accredited radiation dosimetry services through the USAF Dosimetry Center, comprehensive radio-analytical capabilities, and health physics consultative services. (T-1)

2.10.3. Provide quarterly and annual summaries of occupational radiation exposure, from RAM, to the RIC. (T-1)

2.10.4. Provide technical and on-site health physics support to the RIC, RICS and AFSEC/SEW as required to prevent, investigate and mitigate human exposure or environmental contamination from RAM. (T-1)

2.11. The Air Force Radioisotope Committee (RIC), on behalf of AF/SG and the Department of the Air Force, shall:

2.11.1. Provide direction for USAF use of RAM and shall grant to the RICS authority to conduct business consistent with applicable and relevant Federal, DOD and USAF policy, regulations, and guidance IAW with the MML.

2.11.2. Serve, through the RICS, as the USAF single point of contact for the MML.

2.11.3. Recommend policies to AF/SG3/5 for keeping exposure from approved uses of RAM As Low As Reasonably Achievable (ALARA) but always below regulatory limits as promulgated in 10 CFR Part 20 *Standards for Protection Against Radiation*.

2.11.4. Serve, through the RICS, as the USAF single point of contact with the Conference of Radiation Control Program Directors (CRCPD) and CRCPD licensing states for issues pertinent to the MML. Similarly, serve as the single point of contact with Agreement States.

2.11.5. Direct and adjudicate enforcement actions when such actions are required to protect persons or property or maintain compliance with permit and MML conditions.

2.11.6. Identify new or special inspection needs and reports them to AFIA/SG.

2.11.7. Review unique actions and permit requests referred by the RICS.

2.11.8. Review and advise on special situations involving RAM as requested by the RICS, Air Staff, or MAJCOMs.

2.11.9. Identify and invite technical experts, as necessary, to assist in ensuring regulatory compliance.

2.11.10. Meet as agreed upon with the NRC. Convene ad hoc or emergency meetings to discuss matters requiring timely actions.

2.11.11. Publish, and make available, minutes of meetings to all committee members, or others, as appropriate.

2.11.12. Provide final ruling on the interpretation of this instruction, permits and Federal regulations affecting compliance with the MML.

2.11.13. Provide final resolution for any allegations concerning the safe and regulatory compliant use of RAM in the USAF (reference Attachment 8).

2.11.14. Periodically update RIC membership and business practices as identified in RIC standard operating procedures (SOPs), RIC minutes, and **Chapter 2** and Attachment 9 of this AFI.

2.12. The Chief, Air Force Radioisotope Committee Secretariat (RICS), on behalf of the RIC, shall:

2.12.1. Serve as the single point of contact between the RIC, the NRC, and/or Agreement States for all issues associated with the MML. Assists, when requested, in any transactions involving installations outside of the United States and overseas permitted activities that also entail attention to host nation requirements.

2.12.2. Establish and implement policy, in coordination with the RIC, to receive, possess, use, distribute, store, transport, transfer, and dispose of or otherwise manage RAM in the USAF, consistent with applicable and relevant Federal, DOD and USAF policy, regulations, and guidance and IAW with the MML.

2.12.3. Manage and control all RIC correspondence; maintain copies of the following documents:

2.12.3.1. The MML;

2.12.3.2. Documentation of all RIC actions;

2.12.3.3. USAF issued permits, as well as documentation regarding other actions involving the use of RAM within the USAF;

2.12.3.4. AFIA/SG reports of RAM activities.

2.12.4. Review, for approval or denial, USAF permit applications, renewals, amendments and other requests for the possession and/or use of RAM under the authority of the RIC.

2.12.5. Determine whether individuals are qualified by training, education, and experience to use RAM, manage the radiation safety programs for use of RAM, or provide audit services for medical permits.

2.12.6. Regulate the remediation of all radioactive waste disposal sites containing RAM under the purview of this instruction.

2.12.7. Establish terms and conditions for acquiring, receiving, storing, distributing, using, transferring, and disposing of RAM under the authority of the RIC.

2.12.8. Coordinate with AFSEC/SEW on issues involving the licensing of certain RAM. **NOTE:** For aerospace and space power reference AFI 91-110.

2.12.9. Provide permit documentation to AFIA/SG. Notify AFIA/SG of changes to Federal regulations that may have an effect on inspection practices.

2.12.10. Provide interpretation of this instruction, permits and Federal regulations affecting compliance with the MML and USAF policy.

2.12.11. Conduct pre-permitting visits, directs investigations of RAM incidents and mishaps to ensure compliance, and may accompany, as deemed necessary, AFIA/SG and/or the NRC during inspections.

2.12.12. Implement RIC decisions. The Chief, RICS is the executive agent for all business associated with the MML. This includes providing interpretation and setting measures to ensure compliance with applicable NRC and Federal regulations, policy, and/or guidance.

2.12.13. Independently conduct USAF RAM permit inspections as deemed appropriate by the Chief, RICS.

2.12.14. Implement enforcement actions IAW Attachment 7 of this instruction. These may include Notices of Violation (NOV), and revocation and termination orders to protect persons, property, or to maintain MML compliance. Note: the RICS will consider enforcement action(s) for late reporting by installations or Permittees.

2.12.15. Exercise the authority to temporarily suspend a Permittee from any requirement of this instruction, provided the exemption does not conflict with NRC policy or Federal regulations.

2.12.16. Exercise the authority to impose policy or permit requirements more stringent than NRC policy or Federal regulations.

2.12.17. Submit the annual USAF inventory of NRC-regulated SNM to the Nuclear Material Management & Safeguards System (to DOE with courtesy copy to NRC) before 31 March of each year, IAW 10 CFR 74.13. SNM Permittees must support the RICS in this effort. (T-1)

2.12.18. Submit a Nuclear Material Transaction Report in computer-readable format no later than the close of business of the next working day to the Nuclear Material Management& Safeguards System (to DOE with courtesy copy to NRC) IAW 10 CFR 74.15. SNM Permittees must support the RICS in this effort. (T-1)

2.12.19. Submit the National Source Tracking System (NSTS) transaction report IAW 10 CFR 20.2207 (b) to (f), and verifies compliance with 10 CFR Part 37 *Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material*. Note: The applicable Permittee must submit this report to the RICS, for forwarding to the NSTS, by the close of the next business day after the transaction. (T-1)

2.12.20. Submit the USAF annual inventory of Category 1 and 2 nationally tracked sources to the National Source Tracking System by 31 January of each year, IAW 10 CFR 20.2207 (g), and verifies compliance with 10 CFR Part 37. Note: Cat I/II RAM Permittees must support the RICS in this effort. (T-1)

2.12.21. Appoint a Trustworthiness and Reliability (T&R) Official for matters involving radioactive sources which meet the criteria for Increased Controls. Guide implementation of 10 CFR Part 37.

2.13. Major Commands (MAJCOM) shall:

2.13.1. The Commander, Air Force Materiel Command (AFMC/CC), shall:

2.13.1.1. Establish a radioactive waste program office to oversee all radioactive and mixed waste disposition activities in the USAF.

2.13.1.2. Program and advocate funding for radioactive waste management.

2.13.1.3. Establish a capability to oversee and coordinate USAF recycling of RAM where appropriate and cost effective.

2.13.1.4. Ensure all radioactive items, including waste products, are identified in a manner required by 10 CFR Chapter I, or 40 CFR Part 261, et seq. Note: Data for each item will be coordinated with and developed by the appropriate USAF activity radiation safety focal point. (T-1)

2.13.1.5. As necessary, coordinate with the RIC on unique conditions requiring variances to the MML involving the USAF radioactive waste program and recycling of USAF RAM.

2.13.2. MAJCOM Bioenvironmental Engineers (BEEs, or SGPB office symbol), shall:

2.13.2.1. Receive, review and forward documents and reports as required by this and other AFIs in support of RAM management, security, environmental quality, safety and occupational health.

2.13.2.2. Advocate support for the installation BEE and IRSO at the MAJCOM level for the implementation of this and related AFIs.

2.13.2.3. Coordinate Environment, Safety and Occupational Health Council (ESOHC) functional support, from the MAJCOM level if necessary, for AF Permittees and IRSOs in the MAJCOM who don’t have access to an ESOHC at their locations because of Joint Basing, forward basing, geographical separation, etc.

2.13.2.4. Act as the default IRSO for AF Permittees or other AF users of RAM in the MAJCOM who don't have access to an IRSO at their locations due to Joint Basing, forward basing, geographical separation, etc.

2.14. The Commander, 88th Air Base Wing (88 ABW/CC), shall:

2.14.1. Appoint one voting representative and one alternate to the RIC from the Air Force Radioactive Recycling and Disposal (AFRRAD) Office. (T-1)

2.14.2. Sustain the AFRRAD to support, and oversee as necessary, USAF radioactive and mixed waste disposition activities. (T-1) This office shall:

2.14.2.1. Provide technical consultation to the RIC and RICS; installation radiation safety officers (IRSOs); permit radiation safety officers (PRSOs); the A4, A7, SG and SE communities; CE squadrons; and logistics readiness squadrons for all radioactive waste activities to include decommissioning and/or remediation of radiological waste burial sites or contaminated facilities. (T-1)

2.14.2.2. Program and advocate funding for radioactive waste management other than decontamination and decommissioning projects. (T-1)

2.14.2.3. Coordinate radioactive waste disposal among USAF activities, the DOD Executive Agent, disposal contractors, and disposal site operators, IAW Attachment 5. (T-1)

2.14.2.4. Provide consultative support to A4 staff, logistics readiness units, CE units, IRSOs, PRSOs, and waste generators, along with AFLOA/JACE, on how to package and transport radioactive waste for disposal according to 10 CFR Part 71 *Packaging and Transportation of Radioactive Material*, 49 CFR Chapter I, Subchapter C, *Hazardous Materials Regulations*, 40 CFR Part 261 et seq., (for mixed waste) and all applicable disposal site rules. (T-1)

2.14.2.5. Provide quarterly summaries of radioactive waste disposal, waste specific issues for decontamination, and decommissioning activities to the RIC or AFSEC/SEW as appropriate. (T-1) Provide the RICS summaries of 10 CFR Part 31 (*General Domestic Licenses for Byproduct Material*) material received for disposal as requested. (T-1)

2.14.2.6. Maintain all records of radioactive waste transferred for disposal IAW guidance at **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm** and 10 CFR 30.51(a) (2). (T-1)

2.14.2.7. Implement billing procedures IAW AFI 65-601, Volume 1, *Budget Guidance and Procedures*, to allow funded activities to plan, program, and fund the cost of contracted services for the disposition of the RAM they generate. (T-1)

2.14.2.8. Appoint a member to the DOD Disposition Advisory Committee. (T-1)

2.15. The Installation Commander, in addition to responsibilities outlined in AFI 48-148, *Ionizing Radiation Protection*, shall:

2.15.1. Enforce compliance with this AFI and NRC conditions for generally licensed devices (GLDs). (T-0)

2.15.2. Delegate authority in writing to the IRSO to suspend installation operations involving RAM that pose a significant health risk to personnel, present a clear violation of regulations or requirements, or present a high risk of negative impact to USAF operations, materiel, or real estate. (T-1)

2.15.3. Provide required resources to the IRSO to maintain compliance with this instruction and applicable Federal, DOD, and AF regulations and/or directives. (T-1)

2.15.4. Provide the IRSO with clearance and access to all activities governed by this instruction. (T-1)

2.15.5. Prohibit the receipt or transfer of RAM (to include RAM used in classified operations) without prior coordination and/or approval by the IRSO. (T-1)

2.15.6. Ensure the IRSO is notified of all activities pertaining to the generation and maintenance of radioactive waste or radioactive waste burial sites. (T-1)

2.15.7. Afford to AFIA/SGI or NRC inspectors, at all reasonable times, the opportunity to inspect permitted materials as well as the records, premises, facilities, and activities associated with their acquisition, receipt, possession, use, storage, transfer, transport, or disposal. (T-0)

2.15.8. Require the IRSO to brief the internal audit of all permits annually at the Environment, Safety, and Occupational Health Council (ESOHC). (T-1)

2.15.9. Ensure personnel in the logistics readiness squadron, CE squadron, and all other USAF personnel engaged in any aspect of the disposition, transportation and shipment of hazardous material (HAZMAT) including RAM are fully trained for duties performed IAW DTR 4500.9-Part II **Chapters 204** and 208, AFJI 23-504, and AFMAN 24-204. (T-0)

2.15.10. Ensure the implementation of safety and security measures which in addition to general radiation protection shall include the timely reporting of defects and noncompliance IAW 10 CFR Part 21 as well as the physical protection of NRC Category 1 and Category 2 sources, requiring increased controls and national tracking, and/or quantities of radioactive materials requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR 37 Appendix A, 10 CFR 20 Appendix E, and 10 CFR 30.72 Schedule C, respectively). (T-0) IRSOs and PRSOs will interface with the RICS which will in turn interface with the NRC. (T-1)

2.15.11. Ensure all NRC specifically licensed RAM, NRC generally licensed RAM, and RIC permitted RAM (and any other type of RAM specified by written RICS directive) possessed, used, or stored by AF installations and tenant AF units are correctly listed in a current and accurate inventory in RAMMIS. (T-1)

2.15.12. **(Added-45SW)** Appoint an Installation Laser Safety Officer (ILSO) in accordance with AFI 48-139, *Laser and Optical Radiation Protection Program*. Unless under exceptional circumstances, the Bioenvironmental Engineering (BE) Flight Commander will be appointed as both the ILSO and Installation Radiation Safety Officer (IRSO). **[Note: the term "IRSO" will refer to both IRSO and ILSO throughout this supplemental instruction.]**

2.16. The Installation Radiation Safety Officer (IRSO), on behalf of the host Installation Commander, and in addition to the responsibilities outlined in AFI 48-148 , shall:

2.16.1. Approve the procurement, acceptance, transfer and use of all RAM on USAF installations, including those from non-USAF organizations, as outlined in this instruction (Reference paragraph 1.1.6). (T-1)

2.16.2. Assist local, host or tenant organizations requesting to use RAM that require a permit under the MML. Supports installation organizations in the application process and serves as a liaison with the RICS. (T-1)

2.16.3. Establish, implement, and manage the overall installation radiation protection program and inform the installation, tenant and subordinate commanders about radiation health and safety issues and compliance measures to control radiation hazards. (T-1)

2.16.3.1. Establish the installation's program to manage generally licensed RAM and devices possessed by local, host or tenant organizations IAW Attachment 2. (T-1)

2.16.3.2. Maintain and annually review the installation ionizing radiation safety/control instruction. Alternately, an installation supplement to both this AFI and AFI 48-148 (factoring in MAJCOM supplements) will satisfy this requirement. The instruction, or supplement, will include installation-specific policy and procedure for implementing each and every installation level subchapter for **Chapter 2** of this AFI as well as each and every subchapter for **Chapter 3** of this AFI, and for integrating the applicable requirements of directive publications falling under AFPD 48-1 and AFPD 91-1 into the overarching installation radioactive materials management program. (T-1) For a Joint base or Joint operation, a comprehensive radiation control plan signed by each co-located service component commander and the installation commander will satisfy this requirement. (T-1)

2.16.3.3. Obtain approval for changes to the installation radiation safety instruction from the installation commander or equivalent. (T-1)

2.16.3.4. Coordinate changes to the installation radiation safety instruction with the affected installation units. (T-1)

2.16.3.5. Ensure compliance with this AFI, and other applicable instructions, and applicable NRC General License requirements (Attachment 2). (T-1)

2.16.4. Consult with and provide requiring activities with information necessary to develop a Performance Work Statement/Statement of Work for compliance with all applicable statutes, regulations and instructions for managing RAM in the USAF, and provide contracting officers information necessary to ensure appropriate award selection criteria are included in the solicitation (based on guidance and information from the NRC, SSDR, RICS, USAFSAM/OE, etc.). Note: requiring activities may have to request this consultation. (T-2) Contracts involving use of RAM must have:

2.16.4.1. An NRC or Agreement State license. (T-0) A copy of the NRC Form 241 must be an adjunct to the Agreement State license for those areas of exclusive Federal jurisdiction. (T-0) For those areas of concurrent or proprietary jurisdiction in an agreement state, the respective Agreement State license is a valid authorization; or

2.16.4.2. A valid US Navy or Veterans Affairs (VA) RAM permit; or (T-0)

2.16.4.3. Written certification from DOE organizations or DOE prime contractors that they are exempt from NRC license requirements; and (T-0)

2.16.4.4. Written approval from the IRSO to transfer, transport, or use temporary storage areas for RAM on the installation. (T-1)

2.16.4.5. A clause authorizing the IRSO to suspend unsafe operations involving the use of RAM. (T-1) Coordinate the specific language for this clause with the staff judge advocate (SJA). (T-1)

2.16.5. Complete, document, and brief the Environment, Safety and Occupational Health Council (ESOHC) on the following items annually: use(s) of non-exempt RAM including generally licensed devices (GLDs) on the installation; annual IRSO review of the installation radiation protection program with regards to regulatory compliance, incidents, material safety and security, and summaries and trends of personnel dosimetry results and surveys to demonstrate exposures are ALARA IAW 10 CFR Part 20; and, annual permit audits signed and dated by the Permit RSO and Permittee for each and all of the installation permits IAW permit conditions, the applicable volume of Nuclear Regulatory Guide (NUREG) 1556, *Consolidated Guidance About Materials Licenses*, audit checklists and SAF/IG guidance. (T-1)

2.16.5.1. A copy of all audit, review and briefing documentation to include signed and dated memos as well as meeting slides and signed minutes shall be provided to the MAJCOM/SGPB (MAJCOM Bioenvironmental Engineer, or BEE), and RICS if requested, within 60 days following the IRSO briefing to the ESOHC. (T-1)

2.16.5.2. For a Joint Base or GSU without an ESOHC, the IRSO will forward signed/dated copies of the annual IRSO program review documentation along with the annual PRSO permit audit documentation directly to the MAJCOM/SGPB (with courtesy copies to Joint Base safety and hazardous materials management/response functions) who will review, and forward to the RICS if requested, within 60 days of receipt. (T-1)

2.16.5.3. For a Joint Base or GSU without an IRSO or BEE, PRSOs will forward signed/dated copies of the annual PRSO permit audit documentation directly to the MAJCOM/SGPB (with courtesy copies to Joint Base safety and hazardous materials management/response functions) who will review, and forward to the RICS if requested, within 60 days of receipt. (T-1)

2.16.5.4. Observe requirements for protected, sensitive, controlled and/or classified information. (T-0)

2.16.6. Advise commanders on compliance with applicable Federal policy relating to RAM as found within 10 CFR Chapter I, Title 29 of the Code of Federal Regulations (29 CFR) Chapter XVII *Occupational Safety and Health Administration*, *Department of Labor*, 40 CFR Chapter I, 49 CFR Chapter I, DTR 4500.9-R-Part II **Chapters 204** and 208, AFJI 23-504, AFJMAN 23-209, AFMAN 24-204, AFMAN 24-210, and *IATA Dangerous Goods Regulation* with respect to this AFI. (T-2) Additionally, IRSOs should be able to communicate the lines of Federal authority as drawn from Title 29 of the United States Code (29 U.S.C.), **Chapter 15**, *Occupational Safety and Health*; 42 U.S.C. **Chapter 23**, **Chapter 82**, *Solid Waste Disposal*, **Chapter 85**, *Air Pollution Prevention and Control*, **Chapter 103**, *Comprehensive Environmental Response, Compensation, and Liability*, and **Chapter 116**,

Emergency Planning and Community Right-to-Know; and, 49 U.S.C. **Chapter 51**. Note: this requirement may be documented through signed IRSO appointment memos, ESOHC minutes, IRSO memoranda to commanders, and installation instructions (or supplements or plans, as applicable).

2.16.7. Apply applicable local, state and Federal guidance on handling, staging, storage and disposition of RAM, radioactive waste and mixed waste. (T-1) Coordinate such activities with affected personnel to include but not limited to PRSOs, the fire chief, SJA, environmental coordinators, BEE, and CE. (T-1)

2.16.8. Review all work orders prepared for installation-level actions involving potential use, movement, transfer or disposal of RAM. (T-2)

2.16.9. Review surveys of locations where RAM are received, used, or stored, or where radioactive waste are stored, buried, or not otherwise covered by a permit, IAW AFI 48-148. (T-1) Retain records IAW 10 CFR 20.2110, other applicable parts of 10 CFR Chapter I, this AFI, and RIC written directives with reference to RIC website content (secondary guidance) and USAFSAM/OE technical guidance (secondary guidance). (T-0) Additionally, ensure:

2.16.9.1. Compliance with personal protective equipment; shielding; training; posting; personnel dosimetry requirements; 10 CFR 20.1301; applicable permit conditions; this instruction; local instructions; and Federal regulations. (T-0)

2.16.9.2. Radiation survey meters (used for determining compliance with AFIs and Federal regulations) are calibrated according to American National Standards Institute (ANSI) guidance at intervals not to exceed one year, unless otherwise specified by the permit, AFIs or Federal regulations. (T-0) Each radiation survey meter shall be capable of measuring the energies of interest and operationally checked with an appropriate check source or internal reference standard prior to use. (T-0) Records of calibration shall be kept as prescribed in 10 CFR Chapter I (primarily 10 CFR Part 20) and RIC written directives with reference to RIC website content (secondary guidance) and USAFSAM/OE technical guidance (secondary guidance). (T-0) A record of operational checks is not required, but is recommended.

2.16.9.3. Postings and labeling are appropriate, and coordinates with CE to ensure appropriate warning signs are posted IAW AFIs and 10 CFR Part 20 Subpart J. (T-0)

2.16.10. Collect and present metrics in support of paragraph 2.16.5 for RAM receipt, RAM disposition, RAM inventories, RAM area surveys and leak tests, unit RAM permit audits, external RAM inspections, RAM-related dosimetry and trends, RAM-related overexposure of personnel or the public, and other RAM-related incidents. (T-1) Establishes, when a Radiation Safety Committee (RSC) is not required, investigation action levels (IALs) to ensure exposure to personnel is kept ALARA. (T-1) IALs should be developed for each occupational group and are intended to identify adverse trends, assess their causes, and implement appropriate corrective actions; 10% of the dose limit relative the monitoring period is a reasonable default IAL. See AFI 48-148 for more information on IALs. (T-1)

2.16.11. Exercise authority granted by the installation commander according to paragraph 2.15. (T-1) Report deviations from this instruction to the unit Commander and, as necessary, the RICS or AFSEC/SEW, as appropriate. (T-1)

2.16.12. Compile and update RAM inventories through use of RAMMIS which shall include all generally licensed (may not require AF permit IAW 10 CFR 70.19-20, 40.23-28, 31, 30.31) or specifically licensed (AF permit-requiring) SNM, source material, and by-product material including discrete NARM (as defined by the NRC and in 10 CFR Parts 30, *Rules of General Applicability to Domestic Licensing of Byproduct Material*, 40, *Domestic Licensing of Source Material*, and 70, *Domestic Licensing of Special Nuclear Material*) that is possessed or stored by DOD activities and organizations, or in facilities for which the installation commander is responsible. (T-0) Discrete sources of Radium-226 (as defined by the NRC), radioactive artifacts managed within the US Air Force Heritage Program IAW AFI 84-103, *U.S. Air Force Heritage Program*, and non-exempt radioactive check sources must be included on the inventory. (T-0) Note: Weapon systems containing "strategic special nuclear material" or tritium (in addition to associated waste streams) as regulated by 42 U.S.C. § 2121, AFPD 91-1, AFI 91-101, and AFI 91-108 remain exempt from this requirement. "Exempt consumer product uses of nuclear materials", certain "unimportant quantities of source material", and certain US Department of Energy (DOE) activities remain exempt from this requirement IAW 10 CFR Parts 30, 40, and 70.

2.16.13. Maintain knowledge of radiation safety requirements and issues inherent to radioactive dials and gauges authorized for possession and use on the installation (e.g., static display aircraft or other weapon system components). (T-1)

2.16.13.1. Ensure displays containing RAM open to the public are properly marked and labeled and procedures are implemented for control of access to ensure exposures to worker and public are below the limits in 10 CFR Part 20 and maintained ALARA. (T-0)

2.16.13.2. Military operational use sources (e.g., Ra-226 dials and gauges) are exempt from NRC licensing requirements. Military operational use is defined as activities such as warfare, combat, battlefield missions, training for battlefield missions, materials in storage, and materials that may be subject to decontamination and disposal. Other military possession and use of Ra-226, including medical or research activities, conducted by the DOD, or use in a manner similar to a commercial activity are subject to NRC regulatory authority, and may require a USAF RAM permit.

2.16.13.3. Up to 100 non-military operational use Ra-226 sources may be used or stored at any one time, in the same location (e.g., single building), under a general license. Note: Exceeding 100 non-military operational use Ra-226 sources in the same location will require a USAF RAM permit (10 CFR 31.12(a)(4)).

2.16.14. Control (by approving or disapproving) the use of RAM for installation level military readiness training or exercises which may result in exposures to personnel, in order to keep exposures ALARA. (T-1)

2.16.15. Assist the Range Operating Authority (ROA) in the identification and permitting of RAM in targets or target materials prior to placement on a range. (T-2)

2.16.16. Coordinate with AFSEC and the RICS regarding the authority for the transfer to, or use of, RAM on the installation by DOE or DOE prime subcontractors. (T-2) Note: The DOE and DOE prime subcontractors may be exempt from NRC licensing IAW 10 CFR 30.11, 30.12, 40.11, 40.14, 70.11, or 70.17; but, the DOE must yield to 10 U.S.C. § 8013, *Secretary of the Air Force*, DODD 4715.1E, *Environment, Safety, and Occupational Health*

(ESOH), 49 CFR Chapter I Subchapter C—*Hazardous Materials Regulations*, and AF host tenant support agreements when on AF installations.

2.16.17. Provide assistance to the Logistics Readiness Squadron to ensure compliance with the application of this instruction, local instructions and applicable Federal regulations on the receipt, shipment and transfer of RAM. (T-2)

2.16.18. Provide assistance to the Contracting Squadron in evaluating compliance with this instruction, local instructions and applicable Federal regulations on procurement of RAM and contractor use. (T-2)

2.16.19. Provide assistance to template PRSOs including administering the template RSO training, aiding in the transfer or receipt of RAM, and, when necessary, providing radiation detectors to the PRSO, or taking radiation measurements. (T-2)

2.16.20. Advise commanders on the implementation of safety and security measures which in addition to general radiation protection shall include the timely reporting of defects and noncompliance IAW 10 CFR Part 21 as well as the physical protection of NRC Category 1 and Category 2 sources, requiring increased controls and national tracking, and/or quantities of radioactive materials requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR Part 37 Appendix A, 10 CFR Part 20 Appendix E, and 10 CFR Part 30.72 Schedule C, respectively). (T-1) Consider "aggregation" of several RAM sources when determining exceedance of thresholds. (T-1) Note: IRSOs will interface with the RICS which will in turn interface with the NRC. (T-1)

2.16.21. Ensure all NRC specifically licensed RAM, NRC generally licensed RAM, and RIC permitted RAM (and any other type of RAM specified by written RICS directive) possessed, used, or stored by AF installations and tenant AF units are correctly listed in a current and accurate inventory in RAMMIS. (T-1) Contact the RICS for access to RAMMIS. (T-1)

2.16.22. **(Added-45SW)** Review and approve the use of radiation for non-DOD entities operating or using radiation on 45 SW property.

2.16.22.1. **(Added-45SW)** The IRSO shall not act as an approval authority for radiation protection programs or procedures intended for the health and safety of non-DOD workers. Examples include but are not limited to: training programs, operating procedures, and dosimetry.

2.16.22.2. **(Added-45SW)** The IRSO shall receive all relevant radiation surveys, operating parameters, safety procedures, and all other similar documents to determine potential health impacts on 45 SW personnel, mission partners, and visitors.

2.16.22.3. **(Added-45SW)** Have the authority to approve or disapprove of non-DOD entities' operations and safety plans if such operations present an unacceptable risk to 45 SW personnel, mission partners, or visitors.

2.16.23. **(Added-45SW)** Direct and approve all radiation surveys and health risk assessments at 45 SW units and eligible mission partners.

2.17. The Range Operating Authority (ROA), in addition to the requirements of AFI 13-212, *Range Planning Operations*, shall:

2.17.1. Develop and implement procedures to inventory all targets that potentially contain and/or are suspected to contain RAM. (T-1)

2.17.2. Ensure RAM is removed from targets or target materials that potentially contain and/or are suspected to contain RAM prior to placement on a range. (T-1)

2.17.3. Ensure use of targets or target material known or likely to contain RAM is authorized by an AF RAM Permit. (T-1)

2.18. The Staff Judge Advocate (SJA) shall:

2.18.1. Be consulted by the IRSO whenever a question of compliance with Federal, state, or local requirements governing the storage, packaging, handling, manifesting, transport, or disposal of RAM, MW, or LLMW, is the issue. (T-2)

2.18.2. Be consulted when the IRSO requires assistance in interpreting either DOD or Air Force policy/instructions governing RAM, MW, or LLMW. (T-2)

2.18.3. When overseas, perform legal review(s) of translated copies of host nation laws governing control of RAM used on the installation at the request of the IRSO and determines whether the host nation requirements apply to a given overseas installation via treaty or SOFA, as appropriate. (T-2)

2.18.4. Serve as the legal advisor for claims or potential regulatory violations brought against the installation by Federal agencies or civilian parties. (T-2)

2.19. Acquisition Program Managers (PMs) shall:

2.19.1. Guide development and sustainment of systems (space and non-space) and items acquired by the USAF IAW DOD 5000-series policy, as implemented principally by AFI 63-101, *Integrated Life Cycle Management*. (T-0)

2.19.2. Ensure that RAM is acquired, used, or distributed in the USAF inventory within systems only after obtaining the authority of a permit or general license, approval of the RICS, or as otherwise exempted by Federal regulation. (T-0)

2.19.3. Ensure systems or items being developed or acquired by the USAF do not contain radium. (T-1) Ensure items possessed by the USAF that contain radium are returned to the manufacturer, when possible, IAW with approved procedures and in consultation with the IRSO (reference paragraph 2.16). (T-1)

2.19.4. Limit the use of RAM where feasible, consistent with USAF needs. (T-1) Justification shall be documented for deciding that non-RAM or less hazardous RAM are not feasible. (T-1) Justification should include an analysis of the disposal costs and life cycle costs (including handling, permitting, storage, shipment and disposal) in any decision to procure items containing RAM. (T-1) Documentation will be maintained by the program office for the duration the material remains in the USAF inventory. (T-1)

2.19.5. Ensure environment, safety, and occupational health considerations are integrated into the Systems Engineering process from the earliest stages of system design, including systems that will use RAM, by applying the processes described in MIL-STD-882E, to

identify hazards and manage the risks associated with hazards that cannot be eliminated. (T-1)

2.19.6. Specify ANSI and American Society of Testing Materials standards for plated or encapsulated sources that contain RAM. (T-1)

2.19.7. Ensure that RAM in a developed or modified system is identified to testers, operators, and maintainers by specifying its radionuclide, form, and activity. (T-1) Include the NRC's Sealed Source and Device Registry (SSDR) numbers and a copy of the DOT Special Form certification, if applicable. (T-1) Note: The SSDR must specify both the plated or encapsulated source of RAM, as well as the approved device(s) that can contain it. (T-0) Ensure that related information concerning the material's hazards and risks is also identified to testers, operators, and maintainers to facilitate Risk Management by the user. (T-1)

2.19.8. Ensure testers, operators, and maintainers of developed or modified systems that contain radioactive devices/items receive easily understood written instructions on how to properly acquire, receive, use, store, transfer, transport, distribute and/or dispose of the material. (T-1) Instructions shall also include reporting requirements for incidents involving these materials. (T-1)

2.19.9. Ensure any shipment or transfer of RAM for which the PM is responsible is coordinated with the IRSO and is prepared IAW, at a minimum, 49 CFR Chapter I Subchapter C, 10 CFR Part 71, DTR 4500.9-R-Part II **Chapters 204** and 208, AFI 24-210 (I), AFJI 23-504, AFJMAN 23-209, AFMAN 24-204, IATA *Dangerous Goods Regulation*, and this AFI. (T-0) This list is not all inclusive. Consult with the IRSO and SJA to ensure all requirements have been met. (T-1) Ensure a copy of a recipient's permit or license has been obtained prior to shipping permitted or licensed RAM to verify authorization for receipt. (T-0) Ensures a copy of the material receipt is immediately obtained after the transfer. (T-1) The documents should be provided to the IRSO or PRSO and kept IAW 10 CFR Chapter I and RIC written directives with reference to RIC website content (secondary guidance) and USAFSAM/OE technical guidance (secondary guidance). (T-0)

2.19.10. Coordinate with user MAJCOM BEE office to include radiation safety requirements in all contracts for operating, changing, or repairing systems that contain RAM. (T-1)

2.19.11. Ensure that contractors supporting the PM coordinate with the IRSO prior to bringing RAM onto USAF installations. (T-1) Ensure contractors are fully informed (orally and in writing) of the requirement to possess the appropriate licensure. (T-1) In areas of exclusive Federal jurisdiction, contractors must have an NRC license, or an Agreement State license with current NRC Form 241, authorizing possession, use, storage, and transfer of RAM on the installation. (T-0) Written approval from the installation commander's appointed approval authority is also required; this is normally the IRSO. (T-1)

2.19.11.1. Ensure contractors have established procedures instructing their employees and subcontractors on how to use their RAM safely. (T-1) Contractors are solely responsible for the safety and health of their employees and subcontractors. (T-0)

2.19.11.2. Contractors shall immediately contact the IRSO and contracting officer if radioactive devices/items may impact operations, personnel, facilities, or real estate. (T-1)

2.20. The Commander (or Director, or Chief), Installation Contracting, shall:

2.20.1. Ensure that all contracts involving RAM contain required contract clauses and incorporate a detailed Performance Work Statement or Statement of Work. (T-1)

2.20.1.1. DELETE.

2.20.1.2. DELETE.

2.20.1.3. DELETE.

2.20.1.4. DELETE.

2.20.1.5. DELETE.

2.20.2. Coordinate with the IRSO to ensure all solicitations for goods or services that may require the use of RAM contain appropriate award selection criteria. (T-1)

2.20.2.1. **(Added-45SW)** Coordinate with the IRSO to specify acceptable criteria in performance work statements (PWSs) on any contracts that may include the use of radioactive materials (RAM), ionizing radiation-generating devices, electromagnetic field radiation (EMFR) emitters, or lasers.

2.20.2.2. **(Added-45SW)** Ensure that any applicable permits, Nuclear Regulatory Committee (NRC) or Agreement State licenses, or other such applicable documents are provided to the IRSO prior to the contractor bringing radioactive materials onto the installation.

2.20.2.3. **(Added-45SW)** Ensure that contractors complete and submit requests to bring radiation items and/or equipment onto the installation to the IRSO using the following prescribed forms, as applicable. Items are not permitted on the installation until the IRSO has approved the requests.

2.20.2.3.1. **(Added-45SW)** 45 SW Form 2244, *Request to Procure/Transport/Use Laser Device*, shall be submitted for Class 3B or Class 4 lasers.

2.20.2.3.2. **(Added-45SW)** 45 SW Form 2245, *Request to Procure/Transport/Use Electromagnetic Field Radiation (EMFR) Emitter*, shall be submitted if the emitter operates at frequencies between 3 kHz and 300 GHz. Items that will not have the potential to be turned on or otherwise emit EMFR are exempt from this requirement.

2.20.2.3.3. **(Added-45SW)** 45 SW Form 2254, *Request to Procure/Transport/Use Ionizing Radiation-Generating Machine/Device*, shall be submitted.

2.20.2.3.4. **(Added-45SW)** 45 SW Form 2255, *Request to Procure/Transport/Use Radioactive Materials*, shall be submitted.

2.20.3. DELETE.

2.20.4. DELETE.

2.21. The Commander (or Director, or Chief), Installation Logistics Readiness, shall:

2.21.1. Oversee the disposition, transportation, and shipment of HAZMAT (including RAM) installation-wide IAW 49 CFR Chapter I Subchapter C, 10 CFR Part 71, DTR 4500.9-R-Part II **Chapters 204** and 208, AFI 24-210 (I), AFJI 23-504, AFJMAN 23-209, AFMAN 24-204, IATA *Dangerous Goods Regulation*, and this AFI. (T-0)

2.21.2. Ensure personnel performing HAZMAT transportation operations (e.g., receipt, handling, shipment, packaging, certification, etc. of RAM) installation-wide comply with training requirements in DTR 4500.9-R-Part II **Chapters 204** and 208, and AFMAN 24-204. (T-0)

2.21.3. Establish HAZMAT transportation procedures, in coordination with the IRSO, for the safe movement of RAM within, onto or across an USAF installation. (T-1) These instructions will be included in the installation radiation safety/control instruction. (T-1)

2.21.4. Take measures adequate to prevent transfer of RAM to units on the installation without prior coordination with the IRSO and/or affected PRSO(s). (T-1) Permitted RAM will not be transferred to any organizations without a current permit, a PRSO, and proper identification of radionuclides/quantities of material/devices as authorized on the permit. (T-0)

2.21.5. Develop and implement procedures to prevent the inadvertent transfer of RAM or items of supply known or suspected of containing RAM through the Defense Reutilization Management Office (DRMO) system or Disposition Services Field Office (DSFO). (T-1) Establish procedures to notify the IRSO in the event of an incident(s) or the need to perform radiological survey(s) of items that have been identified by DRMO (or DSFO) as having the potential to contain RAM and/or components. (T-1)

2.22. The Commander (or Director, or Chief), Installation Civil Engineering (CE), shall:

2.22.1. Immediately notify the IRSO of damage (e.g., fire, natural disaster) to buildings or waste sites storing and/or containing RAM. (T-1) This includes any incident or event where buildings or sites containing and/or storing RAM are potentially in danger and/or at risk because of their close proximity to the incident.

2.22.2. Ensure disaster emergency response plans include procedures for the theft, loss, sabotage, or release of RAM. (T-0) The IRSO shall be included in the development and exercise of all emergency response plans involving RAM up to and including NRC Category 1 and Category 2 sources, sources requiring increased controls and national tracking, quantities of radioactive materials requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR Part 37 Appendix A, 10 CFR Part 20 Appendix E, and 10 CFR 30.72 Schedule C, respectively), and unsealed sources. (T-1)

2.22.3. Support the IRSO and PRSO(s) in complying with instructions regarding 10 CFR Part 20, 10 CFR Part 21, and 10 CFR Part 37. (T-1) The IRSO or PRSO will typically interface with the RICS which will in turn interface with the NRC. (T-1)

2.22.4. Semi-annually provide the IRSO a list of all radioluminescent exit signs on the installation IAW paragraph 3.2.1.2. (T-1)

2.22.5. Ensure CE Fire Emergency Services knows the physical location, quantity and form for all licensed/permitted RAM possessed, used or stored on those parts the installation for which AF Fire Emergency Services is responsible. (T-3)

2.22.6. Inform the IRSO immediately upon recognizing the possibility of discovering or disturbing radioactive waste before the performance of construction, remediation or restoration activities. (T-1) Immediately inform the IRSO when radioactive waste is discovered. (T-1)

2.23. The Commander (or Director, or Chief), Installation Security Forces, shall:

2.23.1. Immediately notify the IRSO of suspected, attempted or actual theft or sabotage of RAM, to include supply items containing RAM. (T-1) This includes any situation where the potential for collateral damage exists due to threats in near proximity to RAM. (T-1)

2.23.2. Support the IRSO and PRSO in implementing 10 CFR Part 20, 10 CFR Part 21, and 10 CFR Part 37. (T-1) The IRSO or PRSO will typically interface with the RICS which will in turn interface with the NRC. (T-1)

2.23.3. Immediately notify the IRSO of the attempted transport of RAM onto the installation before allowing entry; the IRSO must approve all RAM excluding 91(b) nuclear systems for entry onto the installation. (T-1)

2.24. The Installation Antiterrorism Working Group (ATWG), shall:

2.24.1. Include the IRSO on the installation ATWG and any other installation working groups dealing with emergency management or force protection. (T-1)

2.25. The Permittee shall:

2.25.1. Be the commander, or equivalent (an employee of the USAF), identified in Block 1 of the permit, and the individual ultimately responsible for meeting permit conditions, and compliance with AFIs and applicable Federal regulations. (T-1) Only the RICS can waive Permittee requirements on a case by case basis. The Permittee shall be an individual who:

2.25.1.1. Is a supervisor in the organization in which RAM is used, with operational and administrative control (e.g., unit commander, director, department chair, division chief) over the PRSO and all users; and (T-1)

2.25.1.2. Cannot be the PRSO or user of the RAM authorized by the same permit unless approved by the RICS; and (T-1)

2.25.1.3. Cannot be the IRSO, unless approved by the RICS; and (T-1)

2.25.1.4. Cannot be a contractor, unless approved by the RICS; and (T-1)

2.25.1.5. Is approved by the RICS. (T-1)

2.25.2. Ensure compliance with the specific conditions of the permit. (T-0) All incident reports required must be forwarded to the RICS. (T-0)

2.25.3. Ensure compliance with this AFI, and other applicable instructions, permit conditions and representations in permit applications, or applicable NRC General License conditions. (T-0) USAF requirements for GLDs are found in Attachment 2.

2.25.4. Provide required resources for the PRSO to maintain compliance with this instruction. (T-1)

2.25.5. Provide the PRSO and IRSO clearance and access to review, monitor, and implement controls for all processes involving the use of RAM covered by their permit. (T-1)

2.25.6. Not provide authority to the PRSO to sign documents authorizing any permit actions (Template Permit Action Forms, NRC Form 313, and NRC Form 314). (T-1) Exception: In cases where there exists an active Radiation Safety Committee (RSC), the PRSO may request

permit actions without prior Permittee approval. Actions must be documented in the RSC minutes. (T-0)

2.25.7. Delegate the authority to the PRSO to suspend operations that pose a significant health risk to personnel or the public, or can cause contamination of the environment or noncompliance with this instruction. (T-1)

2.25.8. Ensure applicable program elements as outlined in **Chapter 3** are accomplished. (T-0)

2.25.9. Ensure all contact with the NRC is made through the RICS except in the following instances: (T-1)

2.25.9.1. Actions conducted under the provisions of 10 CFR Part 19 *Notices, Instructions and Reports to Workers* and NRC Form 3; or

2.25.9.2. Communication initiated by the installation Inspector General (IG) or AFIA/SGI.

2.25.10. Ensure an annual internal audit is completed. (T-0) Additionally, for medical permits, ensure that a RICS-approved military or civilian medical physicist conducts an on-site review every two years. (T-1) Validation of a qualified Regular Air Force (RegAF) medical physicist can be determined by the regional consulting medical physics office or the AF/SG Consultant for Medical Physics as specified in AFI 48-148.

2.25.11. Execute the following administrative requirements:

2.25.11.1. Appoint an individual as the PRSO and submit their qualifications for approval by the RICS. (T-1) For Template Permits, this requirement is satisfied by signing page two of the Request for Template Permit Action form;

2.25.11.2. Approve the RSC charter, membership, and Chairperson of the RSC, when required. (T-1)

2.25.12. If applicable, protect NRC Category 1 and Category 2 sources, sources requiring increased controls and national tracking, and quantities of RAM requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR 37 Appendix A, 10 CFR Part 20 Appendix E, and 10 CFR 30.72 Schedule C, respectively) IAW 10 CFR Parts 37, 20, and 30, respectively. (T-0) Consider "aggregation" of several RAM sources when determining exceedance of thresholds. (T-0) Note: the Permittee may either fill or delegate the reviewing official role for local determination of personnel trustworthiness and reliability under 10 CFR Part 37; this reviewing official will check personnel against the Joint Personnel Adjudication System (JPAS) and sign a certification memo.

2.25.13. Submit the National Source Tracking System transaction report, IAW 10 CFR 20.2207 (b) to (f), to the RICS, by the close of the next business day. (T-0) Note: This only applies to a limited number of Permittees; the RICS will contact Permittees for which this applies.

2.25.14. Sustain leases on properties where permitted RAM is located until such time as the RICS terminates the permit. (T-0)

2.25.15. When decommissioning of a property is required, shall not be released from a permit until a Final Status Survey has been approved by the RICS and the NRC. (T-0)

2.25.16. Prepare and certify financial assurance plans or decommissioning plans, if required IAW permit conditions, 10 CFR 30.35, 30.36 (byproduct material), 40.36 (source material) and/or 70.25 (licensed special nuclear material), as applicable. (T-0)

2.25.17. Ensure all NRC specifically licensed RAM, NRC generally licensed RAM, and RIC permitted RAM (and any other type of RAM specified by written RICS directive) possessed, used, or stored by the unit are correctly listed in a current and accurate inventory in RAMMIS. (T-1) Contact the IRSO or RICS for information on RAMMIS. (T-1)

2.26. The Permit Radiation Safety Committee (PRSC), if one is required by the RICS as a permit condition (typically for medical permits IAW 10 CFR Part 35 *Medical Use of Byproduct Material*, and Type A broad scope permits IAW 10 CFR 33.13), shall:

2.26.1. Read and understand this instruction, permit conditions, Federal regulations, and local requirements for using RAM. (T-1) Note: NUREG 1556 Volumes 9 and 11 contain additional guidance for the content and role of PRSCs.

2.26.2. Review the training and experience of nominated authorized users and PRSOs, and recommend approval/disapproval to the RICS. (T-1)

2.26.2.1. When local approval of physicians as medical users is authorized, approve such users provided they have met the following requirements:

2.26.2.1.1. Hold a current medical license; (T-0)

2.26.2.1.2. Possess board certification, and/or comparable training and experience as described in 10 CFR Part 35; (T-0)

2.26.2.1.3. Actively participate in the facility's medical use program. (T-1)

2.26.2.2. Periodically review the approved list of authorized users to verify that information and user's roles in the program(s) for which they have been approved are current. (T-1)

2.26.3. Review and approves or denies requests to use RAM within the scope of their issued permit. (T-1) Approved uses must comply with this instruction, permit conditions, and applicable Federal regulations. (T-0)

2.26.4. Deny or approve minor changes in radiation safety rules with the advice and consent of the PRSC Chairperson and PRSO, as applicable. (T-1) See 10 CFR 35.26 for medical specific guidance.

2.26.5. Establish specific requirements for special proposed uses of RAM (e.g., bioassays, physical examinations of users, and special survey methods). (T-1)

2.26.6. Establish investigation levels for individual occupational radiation exposures and recommend ways to keep individual and collective doses ALARA. (T-1)

2.26.7. Annually, review the PRSO's summary report of the entire radiation safety program to determine whether activities are in compliance with this instruction, the permit and applicable Federal regulations and to ensure exposures are ALARA. (T-1)

2.26.7.1. Direct investigations of all areas of non-compliance, terms and conditions that may, or already have, negatively affected the safety and health of personnel, members of

the public, and/or property. (T-1) Institute sanctions as necessary to effect corrective actions. (T-1)

2.26.7.2. Review AFIA/SG, self-inspection, and monitoring results. (T-1) Implement action(s) to correct safety issues or violations and evaluate effectiveness of corrective actions and corrective non-ALARA exposure trends. (T-1)

2.26.8. Review and approves or denies research protocols using RAM based on safe and approved uses of RAM IAW this instruction, the permit and Federal regulations. (T-1)

2.26.9. Disseminate information to the staff that helps ensure permitted activities are performed safely and in compliance with regulations. (T-1)

2.26.10. Review all dosimetry data quarterly for trend analysis, validation of controls, and to set investigational level based on specific permit activities. (T-1)

2.27. The Chair, Permit Radiation Safety Committee (PRSC) shall:

2.27.1. Be appointed by the Wing Commander or the Medical Group Commander (or organizational equivalent), responsible for the permit, and usually a senior field grade officer (or AF civilian equivalent) within the Permittee's organization. (T-1) The PRSO is prohibited from acting as the Chairperson." (T-1)

2.27.2. Ensure membership is consistent with the scope of permitted activities and regulatory requirements. (T-1) At a minimum, the PRSC should consist of the chairperson, PRSO, representatives using permitted material, and the IRSO. (T-1)

2.27.3. Ensure the PRSC meets as often as required by the permit or this instruction and at least quarterly to assure the radiation safety program is operating in compliance with its permit, established procedures, and regulations. (T-1) A quorum must be present at the scheduled meeting. (T-1) A quorum consists of the PRSC Chairperson (or designated representative), the primary or alternate PRSO, IRSO or alternate, and at least half of the PRSC membership.

2.27.4. Invite commanders whose resources and/or direct activities influence successful outcomes of permitted activities. (T-1) Invite ancillary personnel (e.g., safety, housekeeping, infection control, maintenance, security forces) as deemed necessary. (T-3)

2.27.5. Generate minutes of the meeting including, but not limited to:

2.27.5.1. The date of the meeting; (T-1)

2.27.5.2. Members present and absent; (T-1)

2.27.5.3. A summary of deliberations and discussions, including the numerical results of all votes; (T-1)

2.27.5.4. Recommended actions, including identifying the Office of Primary Responsibility and whether the action is open or closed; (T-1)

2.27.5.5. Approvals granted for individuals, protocols, or other actions, and a copy of the credentials or other documents used as the basis for the approvals; (T-1)

2.27.5.6. Deviations from or violations of this instruction, the permit or Federal regulations; (T-1)

2.27.5.7. Changes to permit conditions and inspection results; and (T-1)

2.27.5.8. ALARA program reviews including trend analyses and self-inspection results. (T-1)

2.27.6. Ensure the RICS, all Permittees and PRSC members receive a copy of meeting minutes signed by the PRSC Chair no later than 45 days after a meeting. (T-1)

2.27.7. Retain meeting minutes until permit termination. (T-0)

2.28. The Permit Radiation Safety Officer (PRSO) shall:

2.28.1. Be a member of the unit with authorized use of permitted RAM (an employee of the USAF), unless otherwise approved by the RICS. (T-1)

2.28.2. Coordinate with the Permittee on requests for an initial permit (as proposed PRSO), renewals, amendments to an existing permit, or termination of a permit. (T-1) The PRSO cannot be the Permittee. (T-1)

2.28.3. Ensure compliance with applicable parts of 10 CFR Chapter I. (T-0) All incident reports required by those parts must be made to the RICS. (T-0)

2.28.4. Ensure compliance with this AFI, other applicable instructions, permit conditions and representations in permit applications. (T-0)

2.28.5. Inform the Permittee, supervisors, workers, and IRSO when procedures are not in compliance with this instruction, Federal regulations, or ALARA. (T-1)

2.28.6. Provide information, as necessary, to the IRSO regarding the receipt, possession, use, distribution, storage, transportation, transfer or disposal of any RAM, or commodity containing RAM. (T-1)

2.28.7. Coordinate with the IRSO to apply for a USAF RAM Permit from the RICS, IAW paragraph 3.4 or paragraph 3.9, unless the material is otherwise excluded by this instruction. (T-1)

2.28.8. Coordinate with the IRSO on operations affecting the installation radiation safety program (e.g., changes in source-use locations, shipment of RAM, or method of disposal) and approves or disapproves actions under his/her jurisdiction. (T-1)

2.28.9. Assist the Permittee and IRSO to determine, report, promptly investigate and correct:

2.28.9.1. The causes, severity, and results of mishaps or incidents; and (T-1)

2.28.9.2. Non-compliance or other variation(s) from approved radiation safety requirements. (T-1)

2.28.10. Document and maintain in binders or files, the Permittee's written policy and procedures for implementing requirements of the permit, this instruction and applicable Federal regulations. (T-0) All permitted activities should have policy and procedures for conducting and documenting:

2.28.10.1. Communications with RICS, including mandatory reporting; (T-0)

2.28.10.2. Authorized procurement of RAM; (T-0)

2.28.10.3. Receipt and acceptance of RAM packages; (T-0)

2.28.10.4. Storage of RAM; (T-0)

2.28.10.5. Inventories of RAM (including GLDs and certain exempt quantities—see Paragraph 3.1.12.) to include providing the inventory to the IRSO if requested; (T-0)

2.28.10.6. Emergency response plans for the loss of control of RAM and updated emergency response numbers; (T-0)

2.28.10.7. Safe use of RAM; (T-0)

2.28.10.8. Periodic radiation surveys as required by permit, regulation, and IAW 10 CFR 20.1501 and 20.1502; (T-0)

2.28.10.9. Calibration and quality assurance checks of survey instruments and other safety equipment; (T-0)

2.28.10.10. Disposal of RAM; (T-0)

2.28.10.11. Financial assurance plans, if required IAW permit conditions; or, 10 CFR 30.35, 30.36 (byproduct material), 40.36 (source material) and/or 70.25 (licensed special nuclear material), as applicable. (T-0)

2.28.10.12. Records of decommissioning of locations where RAM was previously used or stored; (T-0)

2.28.10.13. Training of personnel who work in, or frequent RAM use and storage areas; (T-0)

2.28.10.14. Responses to all findings from AFIA/SG or NRC; (T-0)

2.28.10.15. Permanent archival of permit termination documentation with the base civil engineer, the RICS, and the Air Force Civil Engineering Center (AFCEC). (T-1) Note: these records include the decommissioning plan if applicable, the final status survey report (FSSR) if applicable, NRC or Agreement State memoranda documenting acceptance of the FSSR and approval for permit termination as applicable, the NRC Form 314, *Certificate of Disposition of Materials* (with all applicable attachments), the signed termination permit amendment from the RICS, and RICS memoranda documenting any long-term alternate or additional instructions. Files shall be stored electronically for permanent archival storage after permit termination. (T-1)

2.28.11. Ensure maintenance of records and reports required by NRC regulations and AFIs that apply to each permit, including the permit and permit application, amendments, and correspondence related to the permit. (T-0)

2.28.12. Brief, at least annually, the Permittee and IRSO on the permit radiation safety program, including program regulatory compliance and the results of personnel exposures. (T-1) Documents the annual brief with a memo, Staff Summary Sheet (SSS), or electronic SSS signed by the Permittee and maintains this with permit records. (T-1) A copy of this memo is to be sent to the RICS if requested. (T-1)

2.28.13. Ensure annual training is conducted IAW 10 CFR 19.12, and is commensurate with the level of radiation risk represented by authorized permit activities. (T-0) Training of non-radiation workers that work in the area shall be conducted as well. (T-0) Implementation

should follow guidance in NUREG 1556 for the applicable permit type (reference Attachment 1 and AFI 48-148 for additional information). (T-0)

2.28.14. Assist the RSC, as applicable, in understanding the responsibilities of discharging their duties, and, at a minimum, provides the following information and documents in meeting minutes: (T-1)

2.28.14.1. A summary report of the occupational radiation exposure records of all workers including individuals or groups with higher than expected exposures and established metrics to compare trends over time. (T-1)

2.28.14.2. A summary of all incidents, mishaps and violations involving RAM to ensure the root cause was properly identified and appropriate corrective action(s) was taken. (T-1)

2.28.14.3. A summary of amendments or changes to the permit, this instruction, USAF Policies and Federal regulations affecting the program. (T-1)

2.28.15. Ensure calibration of radiation instrumentation used for compliance monitoring according to ANSI guidance at intervals not to exceed one year unless otherwise specified by permit conditions, AF instruction, or Federal regulation. (T-0) Radiation survey meters shall be capable of detecting the appropriate radiation type, measuring the energies of interest, and operationally checked with an appropriate check source prior to use. (T-0) Retain calibration records IAW 10 CFR Chapter I (primarily 10 CFR Part 20) and RIC written directives with reference to RIC website content (secondary guidance) and USAFSAM/OE technical guidance (secondary guidance). (T-0) Records of operational checks are recommended, not required.

2.28.16. Ensure authorized users performing disposition and transportation functions (e.g., receipt, shipment, disposal, and packaging) for RAM comply with training and other requirements specified in 49 CFR Chapter I Subchapter C, 10 CFR Part 71, *Packaging and Transportation of Radioactive Material*, DTR 4500.9-R-Part II **Chapters 204** and 208, AFI 24-210 (I), AFJI 23-504, AFJMAN 23-209, AFMAN 24-204, IATA *Dangerous Goods Regulation*; and this AFI. (T-0)

2.28.17. Exercises authority granted by the Permittee to request permit amendments for broad scope and medical permits IAW paragraph 2.25.6. (T-3)

2.28.18. Exercise authority granted by the Permittee according to paragraph 2.25. (T-1) Report deviations from this instruction to the unit commander and, as necessary, to the RICS. (T-1)

2.28.19. One month in advance of the shipment or receipt of one gram or more of SNM, coordinate with the Permittee, IRSO, and RICS, then submits a completed NRC FORM 741 (Nuclear Material Transaction Report) to the RICS on the same day. (T-0) The RICS will, in turn, forward the completed NRC FORM 741 to NRC/DOE by no later than the close of business the next working day (NUREG/BR-0006, Rev. 7, *Instructions for Completing Nuclear Material Transaction Reports*). (T-0)

2.28.20. Ensure the implementation of safety and security measures which in addition to general radiation protection shall include the timely reporting of defects and noncompliance IAW 10 CFR Part 21 as well as the protection of NRC Category 1 and Category 2 sources,

requiring increased controls and national tracking, and/or quantities of radioactive materials requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR Part 37 Appendix A, 10 CFR Part 20 Appendix E, and 10 CFR 30.72 Schedule C, respectively) IAW 10 CFR Parts 37, 20, and 30, respectively. (T-0) Consider "aggregation" of several RAM sources when determining exceedance of thresholds. (T-0) Note: Permit RSOs will interface with the IRSO and the RICS which will in turn interface with the NRC. (T-1)

2.28.21. Ensure all NRC specifically licensed RAM, NRC generally licensed RAM, and RIC permitted RAM (and any other type of RAM specified by written RICS directive) possessed, used, or stored by the unit are correctly listed in a current and accurate inventory in RAMMIS. (T-1) Contact the IRSO or RICS for information on RAMMIS. (T-1)

2.29. The Units, Supervisors and Workers using any type of RAM shall:

2.29.1. Comply with the license or permit authorizing materials, this AFI, local instructions, other applicable Federal guidance, DTR 4500.9-R-Part II **Chapters 204** and 208, AFI 24-210 (I), AFJI 23-504, AFJMAN 23-209, AFMAN 24-204, and IATA *Dangerous Goods Regulation*. (T-0) In addition, workers must:

2.29.1.1. Comply with the instruction of the IRSO and PRSO; (T-1)

2.29.1.2. Immediately report conditions that are of imminent danger to life or health, and those that may negatively affect USAF property, to either the IRSO or PRSO; (T-0)

2.29.1.3. Become familiar with NRC Form 3 (if applicable); (T-0)

2.29.1.4. Perform all duties in a way that keeps radiation exposures ALARA; (T-0)

2.29.1.5. Wear dosimetry when required and store dosimetry in the designated control area when not in use. (T-0)

2.29.1.6. Take measures adequate to prevent override of engineering controls, modification of personal protective equipment or tampering with radiation dosimeters or purposely exposing radiation dosimeters to radiation or RAM; (T-0)

2.29.1.7. Bring observed violations to the attention of their supervisors. All workers will report allegations to the RICS or NRC using the procedures in Attachment 8. (T-0)

2.29.2. When hosted by, attached or assigned to a Joint Base/Unit or GSU (CONUS or OCONUS) without a base BEE or IRSO, coordinate approval for the procurement, possession, use, storage, transportation, and disposition of RAM as well as responses and reports for incidents involving RAM through the Joint Base commander (or the commander's appointee/designee) and the AF unit's MAJCOM/SGPB (BEE), who will in turn coordinate with the RICS. (T-1)

2.30. Requiring Activities (for contractor work), shall:

2.30.1. Coordinate with the IRSO to obtain information necessary to develop a Performance Work Statement/Statement of Work for compliance with all applicable statutes, regulations and instructions for managing RAM in the USAF. (T-1)

2.30.2. Ensure, as appropriate, the Performance Work Statement/Statement of Work includes the requirement for the contractor to submit:

2.30.2.1. An NRC or Agreement State license. (T-0) A copy of the NRC Form 241 must be an adjunct to the Agreement State license for those areas of exclusive Federal jurisdiction. (T-0) For those areas of concurrent or proprietary jurisdiction in an agreement state, the respective Agreement State license is a valid authorization; or

2.30.2.2. A valid US Navy or Veterans Affairs (VA) RAM permit; or (T-0)

2.30.2.3. Written certification from DOE organizations or DOE prime contractors that they are exempt from NRC license requirements; and (T-0)

2.30.2.4. Written approval from the IRSO to transfer, transport, or use temporary storage areas for RAM on the installation. (T-1)

2.30.2.5. A clause authorizing the IRSO to suspend unsafe operations involving the use of RAM. (T-1) Coordinate the specific language for this clause with the IRSO and SJA. (T-1)

2.30.3. Ensure a Contracting Officer Representative is nominated, as applicable in accordance with Air Force Federal Acquisition Regulation Supplement (AFFARS) MP5301.602-2(d). (T-0)

Chapter 3

GUIDANCE AND PROCEDURES

3.1. Prohibitions and Special Requirements for Accepting or Using RAM.

3.1.1. RAM shall not be applied to people or clothing. (T-0) Exception: RAM may be applied as part of an approved medical diagnostic or therapeutic practice**.**

3.1.2. RAM shall not be incorporated in any food, beverage, cosmetic, drug, or other commodity, product or item unless specifically licensed by the NRC or permitted by a USAF RAM Permit authorizing the activity. (T-0)

3.1.3. RAM shall not be collected as souvenirs or incorporated into souvenirs (e.g., 30 millimeter (mm) depleted uranium (DU) penetrators, dials and gauges containing radium paint, exit signs containing tritium). (T-0)

3.1.4. RAM shall not be included in displays open to the general public. (T-1) Exceptions:

3.1.4.1. Materials for displays that teach personnel how to operate a device that functions only if RAM is incorporated as a component of the item or device;

3.1.4.2. Materials used to train personnel how to identify an item or substance;

3.1.4.3. Materials authorized by the AF Museum (e.g., static display aircraft or other weapon system components having dials or gauges containing RAM); or

3.1.4.4. A USAF RAM Permit authorizes the display.

3.1.4.5. The exceptions apply provided displays are properly marked and labeled and procedures are implemented for control of access to ensure exposures to worker and public are below the limits in 10 CFR Part 20, and ALARA. (T-1)

3.1.5. Targets used on operational ranges shall not contain RAM, including exempted materials, unless specifically allowed to do so by a USAF RAM permit. (T-0) Range authorities shall develop and implement procedures to screen all targets that potentially contain and/or are suspected to contain RAM. (T-1)

3.1.6. Only the RICS may cite the MML as authority to receive RAM or devices that have RAM into the USAF supply inventory. (T-0)

3.1.7. Installation Commanders and Permittees will recognize the RIC/S as the interpretive authority on any AFIA/SG finding. (T-1) The AFIA/SG shall not be cited as authority to deviate from the permit, AFIs, or applicable Federal regulations. (T-1) Note: “RIC/S” is used to designate the RIC and/or RICS.

3.1.8. A USAF RAM Permit shall not be cited as authority to receive RAM or devices that contain RAM unless specifically authorized on the permit. (T-0)

3.1.9. Individuals organizations shall not physically accept custody of non-exempted RAM without first obtaining written approval via a permit or other authorization from the RICS or AFSEC/SEW. (T-0)

3.1.10. Individuals or organizations shall first consult and coordinate with the RICS prior to responding to civilian or other non-USAF entity requests for assistance involving potential USAF-owned RAM. (T-1)

3.1.11. USAF activities in locations outside of the United States and its territories shall also follow applicable laws and regulations of either the United States or the host nation. (T-0) Host nation laws and regulations concerning import, export, control, and/or disposal of RAM shall take precedence according to the terms of an applicable international agreement with the host nation if those laws and regulations are as, or more, stringent than the laws and regulations governing import, export, control, and/or disposal of RAM in the United States. (T-0) Radiation safety standards and requirements followed by USAF organizations overseas will always be at least as stringent as those followed by USAF organizations within the United States. (T-1) IAEA Safety Standards may be considered where applicable.

3.1.11.1. Permits issued to USAF organizations on installations in locations outside of the United States and its territories are subject to all applicable host nation restrictions under applicable international agreements. (T-0)

3.1.11.2. USAF installations located within a host nation will honor contractor host nation licenses for using RAM in like manner as a NRC or Agreement State License. (T-0)

3.1.12. Exempt Quantities. This instruction requires the inventory of material covered by 10 CFR 30.15 (e.g., electron tubes and wrist watches), 30.19 (e.g., gun sights), 30.20 (e.g., chemical agent detectors) and any discrete source in 30.18 (e.g., check sources) not otherwise excluded by the RICS. (T-1) RAM integral to in-service aerospace vehicles or weapons system (e.g., magnesium thorium, optics and electronics) is exempt from inventory until such time it is removed for disposal by Aerospace Maintenance and Regeneration Center or AFRRAD. (T-1)

3.1.13. The statements in this section (3.1.) apply to all real property, installations, bases, organizations, units, commanders, personnel, and employees of the USAF, ANG, and AFRC.

3.2. Procuring Radioactive Materials.

3.2.1. Individuals or organizations:

3.2.1.1. Shall not procure RAM or accept RAM into the USAF supply inventory without a permit (10 CFR 30.34(c)). Exception: Reference paragraph 3.3.2. (T-0)

3.2.1.2. Shall not procure facility radioluminescent exit signs (e.g., emergency exit signs containing tritium) and markers without RICS written approval. (T-1) For all radioluminescent signs placed into use prior to the issuance of this instruction, the base CE office must provide the IRSO with an updated semi-annual inventory of signs, to ensure compliance with Attachment 2 and 10 CFR 31.5. (T-1)

3.2.2. For guidelines on procuring items with RAM, follow AFJI 23-504, *Radioactive Commodities in the DOD Supply System*, and this instruction. (T-1)

3.3. Requirements for a Permit issued under the USAF Master Materials License.

3.3.1. All USAF organizations must obtain a RAM permit from the RICS prior to purchasing, receiving, storing, distributing, using, transferring, or disposing of:

3.3.1.1. Specifically licensed byproduct, source, NARM, and SNM, to include those materials covered by the expanded definition of byproduct material in the Energy Policy Act of 2005, other than those exempted in paragraph 3.3.2. (T-0)

3.3.1.2. No other organization can issue a USAF RAM permit except for the RICS. (T-0)

3.3.2. USAF organizations may not require a permit for the following RAM (consult with RICS):

3.3.2.1. Certain concentrations or quantities of RAM, as detailed in 10 CFR Chapter I (e.g., 10 CFR 30.14 & 30.18). USAF units/organizations have restrictions on the disposition of exempt quantities of RAM, as detailed in this instruction, and 10 CFR 30.70, Schedule A, or 30.71, Schedule B. (T-0) Note: The material must have been originally distributed from the manufacturer as exempt. (T-0) Licensed or permitted RAM cannot be considered as exempt simply because it has decayed, has been subdivided to a quantity below the exempt quantity, or has been diluted to a concentration below the exempt concentration. (T-1)

3.3.2.2. Source material specifically exempted by 10 CFR 40.13. Note: The item must have been originally distributed from the manufacturer as exempt from licensing and meet strict activity and use limitations as specified in 10 CFR 40.13. (T-0) This exemption only applies to the requirements of a permit, and not the other requirements specified in 10 CFR Parts 19 and 20 (e.g., radiation dose standards, reporting, disposal).

3.3.2.3. Source material (uranium or thorium) IAW 10 CFR 40.22. Note: The source material is generally licensed and USAF organizations obtaining source material under 10 CFR 40.22 are not exempt from the requirements of 10 CFR Parts 19, 20, and 21 since the USAF possesses source material under a specific license (reference 10 CFR 40.22(b)).

3.3.2.4. GLDs, when managed according to 10 CFR 31.3, 31.5, 31.7, 31.10, or 31.11. Requirements for possession, transfer and disposal of GLDs are summarized in Attachment 2. Note: Devices requiring registration under 10 CFR 31.5(c)(13), containing at least 10 mCi of Cesium-137, 0.10 mCi of Strontium-90, 1.0 mCi of Cobalt-60, or 1.0 mCi of Americium-241, shall be specifically permitted. (T-0)

3.3.2.5. Nuclear weapons and certain radioactive parts of weapons systems classed as 91(a) and/or 91(b) material.

3.3.2.6. Reactor fuel elements and sources inherent to reactor operations (e.g., neutron start-up sources classed as 91(b) material). Note: This exemption does not apply to ancillary support sources, such as calibration sources, that are not classified as 91(b) material.

3.3.2.7. Electron tubes containing Rhenium-187, or otherwise specifically exempted under the provisions of paragraph 3.3.2.1 and 10 CFR 30.15(a) (8).

3.3.2.8. Other material for which the RICS or AFSEC/SEW, as appropriate, waives the requirement for a permit.

3.3.3. Non-USAF organizations, except DOE organizations and DOE prime contractors, transferring or using RAM on USAF installations in areas of exclusive Federal jurisdiction must have an NRC or Agreement State license with a current NRC Form 241 authorizing

transfer and use on the installation and written approval from the installation commander's appointed approval authority, normally the IRSO (10 CFR Part 150.20(b).1). (T-0)

3.3.4. DOE organizations and DOE prime contractors must certify, in writing, that they are exempt from NRC licensing requirements. (T-2)

3.4. Requesting Permits, Amendments, and Other Authorizations for RAM Use.

3.4.1. There are two types of USAF RAM permits: Template and Non-Template.

3.4.1.1. Template permits are issued for devices or applications that pose relatively little radiological risk and employ standardized permit conditions.

3.4.1.2. Non-Template permits are issued to organizations that involve significant amounts of sealed or unsealed RAM and pose greater than minimal radiological risk. These permits mandate detailed radiation protection programs and terms and conditions for use. Examples include nuclear medicine clinics, radioactive waste sites, research laboratories or other unique applications where standard permit conditions are not appropriate.

3.4.2. Initial applications for permits are prepared and submitted through the IRSO to the RICS with a courtesy copy to the MAJCOM Bioenvironmental Engineer (BEE) IAW current guidance provided by the RICS, e.g. RIC website content. (T-1) Contact the RICS if an immediate mission critical permit or amendment is required. (T-1)

3.4.2.1. The RICS can provide prescribed NRC forms, copies of regulatory guides, and additional guidance on the administrative aspects of permits. NRC forms and regulatory guides are also available through the Nuclear Regulatory Commission at **http://www.nrc.gov/reading-rm/doc-collections/**.

3.4.2.2. Permit applications require the signature of the Permittee on an NRC Form 313 and appointment of a PRSO and, if possible, an alternate PRSO. (T-1) This application must be sent to the RICS, NOT THE NRC! (T-1)

3.4.2.3. Organizations planning new or unique applications of RAM must contact the RICS as early as possible to decide the scope of the permit and the need for a site visit by the permit action officer. (T-2)

3.4.2.4. Plans for new facilities must be approved by the RICS, prior to construction, if intended use involves NRC Category 1 and Category 2 sources, requiring increased controls and national tracking, and/or quantities of radioactive materials requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR Part 37 Appendix A, 10 CFR Part 20 Appendix E, and 10 CFR 30.72 Schedule C, respectively), and unsealed RAM. (T-1) Plans must include provisions for baseline surveys prior to initially storing RAM in a location. (T-1) Increased controls shall be in place and inspected by AFIA/SG before the permit will be issued. Consider "aggregation" of several RAM sources when determining exceedance of thresholds. (T-1)

3.4.2.5. Applications for activities expected to have a significant environmental impact shall be evaluated IAW 32 CFR Part 989 *Environmental Impact Analysis Process*. (T-0) Construction of a facility or site at which the activity will be conducted shall not begin until the environmental impact report has been submitted with the permit application, and

found acceptable, pursuant to subpart A of 10 CFR Part 51 *Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions*. (T-0)

3.4.2.6. Pursuant to 10 CFR 30.35 and 30.36 (byproduct material), 40.36 (source material), and/or 70.25 (licensed source material), certain applications require a proposed decommissioning funding plan and/or a certification of financial assurance for decommissioning. (T-0) The RICS should be contacted prior to non-template permit application submission on the need for these plans.

3.4.2.7. Each application to possess RAM in unsealed form, on foils or plated sources, or sealed in glass in excess of the quantities in 10 CFR 30.72, *Schedule C – Quantities of Radioactive Material Requiring Consideration of the Need for an Emergency Plan*, requires either a dose assessment or an emergency plan pursuant to 10 CFR 30.32(i)(1)-(3). (T-0) The RICS should be contacted to coordinate development of these materials.

3.4.2.8. Applicants desiring to ship, transfer or transport RAM greater than a Type A quantity (reference 10 CFR Part 71, Appendix A, *Determination of A1 and A2*) must have an NRC approved transportation quality assurance (QA) program IAW 10 CFR Part 71, Subpart H*;* this can be accomplished by:

3.4.2.8.1. Submitting an application to the RICS following guidelines in 10 CFR Part 71, Subpart G, Subpart H; and NRC Regulatory Guide 7.10. (T-0) Note: Contact the RICS for guidance if not using a commercial NRC approved package.

3.4.2.8.2. Alternately, utilizing a source vendor or other NRC or Agreement State licensee with a NRC approved transportation QA program. (T-0) Note: Ensure that the contractor has jurisdictional authority to perform desired work. (T-0) Contact the RICS for guidance.

3.4.2.8.3. Applicants desiring to ship items falling under 10 CFR Part 37 must also implement additional security measures. (T-0) Note: Contact the RICS for guidance, if needed, at least six months prior to shipping date (also ref NRC Order EA 05-090, *ORDER IMPOSING INCREASED CONTROLS*). (T-0)

3.4.3. Renewal Permit Applications:

3.4.3.1. USAF RAM Permits are issued with expiration dates. Renewal applications for both types of permits are prepared and submitted through the IRSO to the RICS with a courtesy copy to the MAJCOM Bioenvironmental Engineer (BEE) IAW current guidance provided by the RICS, e.g. RIC website content. (T-1)

3.4.3.1.1. Renewal applications for non-template permits must be submitted at least three (3) months, but not greater than six (6) months, prior to the expiration date to allow time for the application to be reviewed and the new permit issued in a timely manner. (T-2)

3.4.3.1.2. Renewal applications for template permits must be submitted at least one (1) month, but not greater than three (3) months, prior to the set expiration date to allow time for the application to be reviewed and the new permit issued in a timely manner. (T-2)

3.4.3.1.3. The existing permit will continue in full force and effect beyond the expiration date, provided the renewal application was submitted in a timely manner

prior to the expiration date, and a "Deemed Timely Filed" memorandum has been received from the RICS, or AFSEC/SEW as appropriate. Failure to renew the permit will result in a Cease and Desist enforcement action from the RICS and the permit will default to *possession only* status and use of RAM will no longer be authorized. (T-0)

3.4.4. Permit Amendments: All requests must be submitted through the IRSO to the RICS with a courtesy copy to the MAJCOM Bioenvironmental Engineer (BEE) IAW current guidance provided by the RICS, e.g. RIC website content. (T-1) Permittees must apply for a permit amendment when the following conditions are anticipated:

3.4.4.1. A change to the primary or alternate PRSO. (Reference paragraph 2.28, Attachment 3, RIC written directives, RIC website content [secondary guidance], and/or USAFSAM/OE technical guidance [secondary guidance]); (T-0)

3.4.4.2. A change involving authorized users (AUs), a nuclear pharmacist, a medical PRSO, or an authorized medical physicist. (T-0) Medical and broad scope Permittees as well as portable gauge non-template Permittees (i.e., moisture density gauge Permittees, etc.) shall notify the RICS when an AU, a nuclear pharmacist, a medical PRSO, or an authorized medical physicist leaves or discontinues their duties under the permit, as applicable. (T-1) Permittees must appoint in writing only fully-qualified AUs, nuclear pharmacists, medical RSOs, or authorized medical physicists, as applicable; a corresponding permit amendment request with supporting documentation (i.e., training and/or board certification, etc.) must be submitted to the RICS. (T-0)

3.4.4.3. Procurement of RAM that is not authorized by the permit; this also includes a change to radionuclide chemical or physical form, or possession of more than the maximum quantity authorized on the permit. (T-0) Special attention should be given to NRC Category 1 and Category 2 sources, requiring increased controls and national tracking, and/or quantities of radioactive materials requiring an emergency plan for responding to a release ("toxic industrial radiologicals", as listed in 10 CFR Part 37 Appendix A, 10 CFR Part 20 Appendix E, and 10 CFR 30.72 Schedule C, respectively), and unsealed RAM. (T-0)

3.4.4.4. Changing the use or storage areas of RAM listed in the application or listed on the permit. (T-0)

3.4.4.5. Formulating any changes in the shielding of rooms used for medical radiotherapy, industrial radiography, instrument calibration, irradiation or other RAM use that require radiation shielding in walls, floor or ceiling to protect adjacent areas. (T-1)

3.4.4.6. Using RAM for a clinical procedure allowed by 10 CFR Part 35, but not authorized by the existing permit. (T-0)

3.4.4.7. New permit applications and amendments for the issuance of all types of chemical agent monitors shall be coordinated with the RICS. (T-0)

3.4.4.8. If a change must be initiated prior to permit amendment approval, then the Permittee must obtain verbal approval from the RICS, and maintain a record of each minor change until the permit amendment or renewal is granted. (T-1) Documentation shall include: (T-1)

3.4.4.8.1. The effective date of the change;

3.4.4.8.2. A copy of old and new radiation safety requirements

3.4.4.8.3. The reason for the change;

3.4.4.8.4. A summary of radiation safety concerns to be considered before making the change;

3.4.4.8.5. The signature of the PRSO; and

3.4.4.8.6. The signatures of the authorized users affected by the change, the Permittee and the PRSC chairperson.

3.4.4.9. Permit amendments are not required for the following:

3.4.4.9.1. Editing radiation safety requirements or procedures for clarity or conformance with local publication formats or updating titles, telephone numbers, and addresses;

3.4.4.9.2. Replacing permitted items with identical items;

3.4.4.9.3. Reassigning tasks among employees, unless permit involves identified Authorized Users; or

3.4.4.9.4. Assigning service contracts for services such as equipment repair or calibration, waste disposal, health physics or bio-environmental engineering advisor.

3.4.4.10. Permittees must submit an amendment request to the RICS prior to changing their mailing address or when personnel listed on the permit such as users or RSOs permanently cease their duties or change their names. (T-1) Individuals holding the office of Permittee shall notify the RICS through a memorandum signed by the Permittee whenever the Permittee's identity or email address changes as a result of change-of-command, deployment or for any other reason, within 30 calendar days of the change; the memo shall include the new email address for the Permittee and shall be maintained with the permit as a tie-down document. (T-1) Medical Permittees must notify the RICS in writing within 30 calendar days when they change their mailing address or when changing personnel listed on the medical permit. (T-1)

3.4.4.11. RAM must be placed in storage if a qualified PRSO is not available for greater than 30 days (e.g., deployed, TDY). (T-0)

3.4.5. Non-USAF organizations using RAM, including NARM, on USAF installations. When a civilian organization or other Federal agency desires to transfer, transport, or temporarily store RAM on or conduct operations using RAM on a USAF installation, written approval must be obtained from the IRSO. (T-2)

3.4.5.1. The non-USAF organization must send a request to the IRSO at least 30 calendar days before bringing the RAM onto the installation. (T-2) For contractors, these requirements must be included in the statement of work. (T-2)

3.4.5.2. Requests must be in writing and include:

3.4.5.2.1. A brief description of the proposed activities; (T-1)

3.4.5.2.2. A copy of a current NRC or Agreement State license with current NRC Form 241 for areas of exclusive Federal jurisdiction, when applicable. (T-1) For those areas of concurrent or proprietary jurisdiction in an Agreement State, the respective Agreement State license is a valid authorization. The license must either specifically list the installation or authorize approval for work at temporary job sites anywhere in the United States where the NRC or Agreement State has jurisdiction (NUREG 1556 Vol 20, *Guidance About Administrative Licensing Procedures*, and 10 CFR 150.20). (T-0) Exception: Contractors using generally licensed materials (e.g., certain Niton® Lead Paint Analyzers) and DOE or DOE prime contractors operating IAW 10 CFR Part 835 *Occupational Radiation Protection* do not require an NRC license or NRC Form 241. (T-0)

3.4.5.2.3. The name, local address, and telephone number for the responsible local representative and the name, address, and telephone number of the RSO named on their license; (T-3)

3.4.5.2.4. A copy of the contract clause of the USAF contract describing work to be performed at the installation and the inclusive dates of the work; and (T-3)

3.4.5.2.5. A written authorization in the contract that the IRSO can conduct periodic assessments to ensure contractor personnel is complying with radiation safety practices to prevent exposures to USAF personnel and avoid contamination of government property. (T-1) In addition, the contract should specify the IRSO must have authority to suspend contractor operations believed to be unsafe. (T-1)

3.4.5.3. Agreement State licensees using NRC regulated materials in areas of exclusive Federal jurisdiction must provide a copy of the NRC Form 241 approved by either the USAF installation's *or* contractor's NRC Region according to 10 CFR 150.20. (T-0) The form must specify the correct locations and dates of performance of licensed activities. (T-0) State licensees may not work on USAF or other installations where exclusive Federal jurisdiction exists for more than 180 calendar days per calendar year without first getting an NRC license. (T-1)

3.4.5.4. Non-USAF organizations that do not have an NRC or Agreement State License with current NRC Form 241 and who are not DOE or DOE prime contractors exempted from licensing must contact the RICS for guidance and approval to use RAM on an USAF installation. (T-1)

3.4.6. Permittees under new permits will notify AFIA/SG immediately upon first receipt of RAM. (T-2)

3.5. Posting Notices to Workers.

3.5.1. Each Permittee and each applicant for a RAM permit for NRC-licensed RAM (CONUS and OCONUS) must prominently post an NRC Form 3 in the workplace(s) storing or using the licensed RAM. (T-0) Additionally, each Permittee shall prominently post a supplemental notice that briefly describes the nature of, and access to, current versions of the following: 1) regulations in 10 CFR Parts 19 and 20; 2) the permit, permit conditions, or documents incorporated into a permit by reference, and amendments thereto; 3) operating procedures applicable to permitted activities; 4) any notice of violation involving radiological working conditions, proposed imposition of civil penalty, or order issued pursuant to 10 CFR

Part 2 Subpart B of this chapter, and any response from the Permittee; and, 5) any other pertinent MML documentation, IAW 10 CFR 19.11. (T-0) Reference RIC written directives, RIC website content (secondary guidance), and/or USAFSAM/OE technical guidance (secondary guidance) for a supplemental notice template. Note: AF logistics personnel engaged in the transportation of RAM remain exempt to the extent that they transport or store RAM in the regular course of carriage for another or storage incident thereto, IAW 10 CFR Parts 30.13, 40.12, and 70.12. (T-0) Note: additional information may be found under the title "AFI 40-201 Support Documents" by accessing: **https://www.my.af.mil/gcss-af/USAF/site/AF_BE** or **https://kx2.afms.mil/kj/kx5/radiationprograms**.

3.5.2. Permittees, IAW 10 CFR Part 21, must also post a copy of Section 206 of the Energy Reorganization Act of 1974 and a notice regarding the availability of the regulations and procedures adopted according to 10 CFR 21.6. (T-0) Reference RIC written directives, RIC website content (secondary guidance), and/or USAFSAM/OE technical guidance (secondary guidance) for Section 206 of the Energy Reorganization Act of 1974.

3.5.3. The forms and notices must be posted IAW 10 CFR 19.11 and 10 CFR 21.6. (T-0)

3.6. Control of Radioactive Material, and Information Concerning Radioactive Material.

3.6.1. All exempt and non-exempt RAM (e.g., residual radioactive material from past nuclear weapon accidents, incidents, research, maintenance activities, and dismantled/decommissioned reactor 91(b) material still under USAF possession), must be secured from unauthorized removal or access. (T-1) Radioactive materials that are used in unrestricted areas must be under the constant surveillance of an individual authorized under a valid USAF permit or NRC/agreement state license when not in storage. (T-0) Reference 10 CFR Part 20, Subpart I, and 10 CFR Part 37 for more information.

3.6.2. All permitted and licensed radioactive sources and devices must be inventoried as follows: (T-0)

3.6.2.1. Permitted RAM or devices shall be inventoried at the frequency specified in the permit. (T-0)

3.6.2.2. Licensed RAM or devices not requiring a permit shall be inventoried IAW the applicable CFR, Technical Order or AFI (ref Attachment 2 and 10 CFR Part 31). (T-0)

3.6.2.3. Unless otherwise specified, inventories of permitted or licensed materials SHALL be conducted at intervals not to exceed six (6) months (ref NUREG 1556 Vol 20 & 10 CFR 32.210). (T-0)

3.6.3. Inventory documentation must be retained IAW the applicable CFRs (and RIC written directives, with reference to RIC website content [secondary guidance] and/or USAFSAM/OE technical guidance [secondary guidance]). (T-0) Documentation must include the following (10 CFR 35.2067(a) and (b); NUREG 1556 Vol 20): (T-0)

3.6.3.1. Date of the inventory;

3.6.3.2. Model number and serial number of each source, if assigned;

3.6.3.3. The identity of the radionuclide, manufacturer date, and source activity;

3.6.3.4. The location of each source;

3.6.3.5. The signature of the PRSO endorsing the inventory; and

3.6.3.6. NSN, if applicable.

3.6.4. Information Security and Increased Controls for Certain Quantities of RAM: All RAM and information about the RAM shall be protected from malicious use. (T-0) Specific requirements are provided in 10 CFR Part 37, NRC Regulatory Issue Summary (RIS) 2005-31, and RIC written directives. Reference also RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance) for the control of information for certain threshold quantities of material. The thresholds for NRC Category 1 and Category 2 sources, requiring increased controls and national tracking, and Category 3 sources requiring sensitive unclassified non-safeguards information (SUNSI) protection, are listed in 10 CFR Part 37 Appendix A, 10 CFR Part 20 Appendix E, and RIS 2005-31, respectively). Note: Consider "aggregation" of several RAM sources when determining exceedance of thresholds. (T-0)

3.6.5. Medical RAM permit inventories will include a dated photo inventory; Permittees will forward a copy of their current photo inventories to the RICS upon request. (T-1)

3.7. Transferring Permitted Radioactive Material.

3.7.1. Permitted or licensed RAM shall only be transferred to:

3.7.1.1. An organization or person authorized to receive the materials under the terms of a USAF, USN, or VA RAM permit; NRC license; or Agreement State License. (T-0)

3.7.1.2. USAF agencies with written authorization from the RICS or AFSEC/SEW, as appropriate. (T-0)

3.7.1.3. DOE and DOE prime contractors who certify, in writing, that they are authorized to receive the materials. (T-0)

3.7.1.4. Organizations or persons outside the United States under an export license issued IAW10 CFR Part 110 *Export and Import of Nuclear Equipment and Material*. (T-0) Permission to transfer USAF RAM between the USAF and a foreign government requires pre-coordination with the RICS and is determined on a case-by-case basis. (T-1)

3.7.1.5. Common and contract carriers, freight forwarders, and warehouse workers, for transporting or storing materials subject to 10 CFR 30.13, 10 CFR 40.12, and 10 CFR 70.12. (T-0) Package, label, and consign materials for shipment according to 10 CFR 71 and 49 CFR Part 173 *Shippers—General Requirements for Shipments and Packaging*. (T-0)

3.7.2. Permittees shall ensure that any recipient has authority to receive the RAM before making the transfer by: (T-0)

3.7.2.1. Obtaining and filing a copy of the recipient's NRC license, USAF, USN, or VA RAM permit, or Agreement State license giving authority to receive the RAM, or

3.7.2.2. Obtaining and filing a letter from the recipient RSO or Permittee to receive the materials, to include the license or permit number, issuing agency, expiration date, type, form of RAM, and the authorized amount.

3.7.2.3. In emergencies, telephonic certification is authorized when followed up with a letter or message within 10 days.

3.7.3. Reports of Nuclear Material Transaction Reports, when required by 10 CFR 40.64 or 10 CFR 74.15 respectively, must be used for specific transfers. (T-0)

3.7.4. When shipping NRC specifically licensed, generally licensed or permitted RAM, verify the RAM is received by the ship-to-address and/or the intended destination. (T-0) Verification of receipt, in writing, by the recipient is the preferred method; this includes the use of a receipt to show change of custody whenever transferring RAM from the permitted unit to a shipper/carrier, vendor, or another unit. If for some reason written verification cannot be accomplished, then telephonic confirmation may be used provided it is documented and includes name, number and title of the person verifying the receipt and date of the telephonic conversation. When receiving materials from another USAF organization or when requested by a non-USAF shipper, confirm receipt in writing. (T-0) For items shipped to and from Distribution Depots, documentation in Defense Logistics Agency's Defense Logistics Management System is acceptable. Transfer (turn-in/shipment and receipt at receiving end) documentation associated with termination of permitted activities must be provided to the RICS to document applicable permit amendments and permit termination requests. (T-0) Reference DTR 4500.9-R-Part II, *Cargo Movement*, and 49 CFR Chapter I Subchapter C.

3.7.5. Report to the RICS the transfer of generally licensed material with the information required by the NRC IAW 10 CFR 31.5 (reference Attachment 2, RIC written directives, RIC website content [secondary guidance], and/or USAFSAM/OE technical guidance [secondary guidance]). (T-0)

3.7.6. Coordinate with the RICS (or AFSEC/SEW, as appropriate) at least six (6) months in advance, for transfer of NRC Category 1 and Category 2 sources, requiring increased controls and national tracking, IAW 10 CFR Part 37 Appendix A and 10 CFR Part 20 Appendix E, respectively). (T-2) Consider "aggregation" of several RAM sources when determining exceedance of thresholds. (T-1)

3.7.7. Keep records of all transfers IAW 10 CFR Chapter I, this AFI, and RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance). (T-0) The transfer receipt format shall at a minimum include the date of physical receipt of the item(s); serial number(s); description and quantity of the item(s); and, the name and signature of the recipient. (T-1) Note: Transfer of permitted radioactive material from office to office at an installation, including the transportation management office, should be documented. The AF1297, Temporary Issue Receipt, or alternate form will be retained as a record of transfer. (T-3)

3.7.8. Transfer of all RAM from one permit to another does not constitute termination or relieve the Permittee from notifying the RICS or AFSEC/SEW as appropriate and providing information on decommissioning. Accordingly, such permits are considered in full force and effect and subject to inspection by AFIA/SG until the conditions of paragraph 3.11 are met.

3.8. Transporting Radioactive Material.

3.8.1. USAF organizations shipping or transporting RAM must comply with 49 CFR Chapter I Subchapter C, 10 CFR Part 71, DTR 4500.9-R-Part II **Chapters 204** and 208, AFI

24-210 (I), AFJI 23-504, AFJMAN 23-209, AFMAN 24-204, IATA *Dangerous Goods Regulation*, and this AFI. (T-0)

3.8.2. The generating activity must properly identify RAM and items containing RAM when sending to the Traffic Management function for packaging and shipping. (T-0) Identification of these items and/or RAM shall be IAW 49 CFR 172.202 and shall include the following: (T-0)

3.8.2.1. Radionuclide(s);

3.8.2.2. Description and number of items;

3.8.2.3. Item nomenclature and, if applicable, NSN, proper shipping name and UN number;

3.8.2.4. Individual and total activity in units of Becquerel (Bq) with curies (Ci) in parentheses; and

3.8.2.5. Chemical and physical form (e.g., special form, normal form).

3.8.3. When shipping between or to OCONUS locations, compliance with applicable SOFA, International Air Transportation Association standards and International Atomic Energy Agency (IAEA) Transportation Safety Standards (TS-R-1) is required. (T-0)

3.8.4. Local AF installation logistics personnel (and AFRRAD personnel when applicable) will complete transportation/shipping discrepancy reports (TDRs/SDRs) IAW the Defense Transportation Regulations upon receipt of an improperly shipped RAM package and will forward copies of submitted TDR/SDR information to the RICS and to the RIC members representing AF/A4. (T-1)

3.9. Managing and Remediating Radioactive Waste Sites.

3.9.1. Manage and remediate radioactive waste sites according to AFI 32-7020, *The Environmental Restoration Program,* and policies established by USAF/A4 and Attachment 4 of this instruction. (T-2)

3.9.2. Radioactive waste site remediation is a complex multi-phase, multi-agency process that is outlined in NUREG 1575, *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).* Attachment 4 contains the major responsibilities for each agency and provides a chronological sequence of events that should be followed in order to ensure regulatory compliance.

3.9.3. USAF organizations are not authorized to possess radioactive investigation derived waste or radioactive remediation waste unless authorized by a specific permit. (T-1)

3.9.4. All suspected radioactive waste sites must be entered into the AF Radioactive Waste Site Registry, maintained by AF/A4CAN. (T-1) The registry is a database of all formerly known and/or potentially radioactive waste sites. For reasons of posterity, privatization of land, occupational health, public health and public relations, it is imperative that the USAF maintain a master log of these sites. (T-1)

3.9.5. Any USAF organization, or agency acting on behalf of the USAF, performing intrusive characterization or site remediation involving RAM, must have:

3.9.5.1. An NRC or Agreement State RAM license that authorizes site remediation activities (NUREG 1556 Vol 20 & 10 CFR 150.20, 10 CFR Part 30); or (T-0)

3.9.5.2. A USAF or USN RAM permit that authorizes site remediation activities; and (T-0)

3.9.5.3. Experience with site remediation. (T-3)

3.9.6. Installations may undertake invasive characterization only if they intend to remediate the site. If this is the case, approval of the RICS or AFSEC/SEW, as appropriate, is also required. (T-1)

3.9.6.1. Remediating a site generates radioactive waste that must be controlled and properly disposed of IAW current AFRRAD guidance. (T-1) Remediating a site may also release waste in quantities that dictate a prompt total exhumation. (T-1)

3.9.6.2. Prior to instigating intrusive investigation contracts, the installation should perform a complete historical site assessment. (T-1)

3.9.7. Work and health and safety plans for remediation of radioactive waste sites, to include waste disposal procedures, must be coordinated IAW Attachment 4 of this instruction. (T-2) If, during the course of remediation, a site is found to contain RAM which was not anticipated, then work must be temporarily ceased and the IRSO must immediately notify the RICS or AFSEC/SEW as appropriate, to determine requirements for continuation of field activities. (T-1)

3.9.7.1. All plans will be submitted to USAFSAM/OE and the AFRRAD office for approval during the project planning stage. (T-2)

3.9.7.2. Plans for sites containing or suspected to contain only 91(a) or 91(b) materials shall be submitted to the Weapons Safety Division of the AFSEC/SEW. (T-2)

3.9.7.3. Plans for all other sites shall be submitted to the RICS for review. (T-1) Those sites containing or potentially containing byproduct, source, NARM, and SNM will be forwarded by the RICS to the NRC for their review. (T-1)

3.9.8. Final reports of remediation of all sites containing RAM shall be sent to the RICS or AFSEC/SEW, as appropriate, for archival purposes. (T-1) The AFRRAD office will maintain and archive all disposal records and manifests for radioactive waste generated from a remediation. (T-1)

3.10. Managing and Disposal of Radioactive Materials.

3.10.1. IRSO and PRSOs jointly prepare requirements for waste management, according to Attachment 5, by considering local conditions such as quantities and types of waste produced, where waste is generated, and the location and configuration of available storage. (T-2)

3.10.1.1. The base Civil Engineer provides environmental consultation to generating units, the IRSO, and the AFRRAD office on the RCRA hazardous waste requirements of 91(b) mixed waste as related to the proper identification, handling, segregation, and storage of such waste. (T-2)

3.10.1.2. The base Civil Engineer oversees compliance with installation RCRA permits, if applicable, and/or RCRA requirements for storage, treatment, and disposal of mixed waste IAW applicable Federal, state, and local requirements, AFI 32-7042, *Waste Management,* and in coordination with the IRSO and the AFRRAD office. (T-2)

3.10.1.3. Installation generators will coordinate the disposal of radioactive waste and mixed waste with the base Civil Engineer and the IRSO, who will in turn, coordinate with the AFRRAD office. (T-2)

3.10.2. A USAF RAM permit is required for all radioactive waste storage areas used for permitted or licensed quantities of NRC regulated waste. (T-1)

3.10.2.1. Radioactive waste storage from more than one permit at a single location or otherwise co-mingling radioactive waste from more than one permit is prohibited unless specifically authorized by the RICS or AFSEC/SEW, as appropriate. (T-1)

3.10.2.2. Mixed waste from nuclear munitions maintenance shall not be commingled or stored with waste from a permit issued by the RICS unless approved by the RICS and AFSEC/SEW. (T-1)

3.10.3. Permittees shall ensure an inventory is maintained and all RAM and items containing or contaminated with RAM is secured pending disposal or transfer. (T-0)

3.10.4. Permittees shall also comply with all other applicable Federal, state, and local regulations and instructions regulating all hazardous and mixed waste at the site. (T-0) Coordinate with the base Civil Engineer to determine local requirements for managing and staging mixed waste. (T-2)

3.10.5. Radioactive waste shall be disposed of as soon as practical. (T-3) Under no condition shall mixed waste be staged for longer than 90 calendar days unless a RCRA permit authorizing storage for a longer period has been secured through the base Civil Engineer. (T-2) Do not collect or store radioactive waste for a period longer than 365 days. (T-1) Coordinate promptly with the AFRRAD office via the PRSO and IRSO. (T-3)

3.10.6. Dispose of RAM using one of the following methods:

3.10.6.1. Transfer to an authorized recipient (reference paragraph 3.7), subject to the restrictions of 10 CFR 20.2001; (T-0)

3.10.6.2. Decay in storage (for RAM having a physical half-life less than 120 days) provided:

3.10.6.2.1. Prior to disposal as ordinary trash, the container's surface and contents shall be surveyed with the appropriate survey instrument set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from natural background; and (T-0)

3.10.6.2.2. All radiation labels and markings shall be removed or obliterated; and (T-0)

3.10.6.2.3. A record of each disposal shall be retained for 3 years (10 CFR 31.51 (a)(1)). (T-0)

3.10.6.2.3.1. The record must include the date of disposal, the date on which the

byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal. (T-0)

3.10.6.2.3.2. Medical Permittees must adhere to 10 CFR 35.92(b). (T-0)

3.10.6.3. Release to effluents IAW 10 CFR 20.2001, if authorized by the RICS. (T-0)

3.10.6.4. Release to the sanitary sewer IAW 10 CFR 20.2003 only if doing so has been determined by the base Civil Engineer to be permissible under the terms of the Clean Water Act permit and other applicable Federal, state, or local regulations; or (T-0)

3.10.6.5. Release Carbon-14 and Hydrogen-3 as non-RAM if it meets the requirements of 10 CFR 20.2005, or other more stringent applicable Federal, state, or local regulations. (T-0)

3.10.7. Disposal by land-burial must be authorized by the AFRRAD office IAW Attachment 5, to include adherence to 10 CFR 20.2006. (T-0) Do not ship radioactive waste from an USAF installation without first acquiring written instructions from AFRRAD. (T-1)

3.10.8. Disposal by sanitary sewer, as described in 10 CFR 20.2003, applies only to circumstances where an installation is discharging effluent to a publicly owned treatment facility. Installations with their own sewage treatment facility must apply to the RICS for authorization to dispose of RAM in effluents IAW 10 CFR 20.2003. (T-0) As noted in paragraph 3.10.6.4, in all cases, the Permittee shall coordinate with base CE prior to disposal to ensure compliance with applicable local ordinances, state laws and Clean Water Act permits. (T-3)

3.10.9. Permittees may propose alternative disposal procedures, IAW 10 CFR 20.2002, to the RICS for approval.

3.10.10. PRSOs shall maintain RAM disposal records IAW with 10 CFR 20.2108 and as required in RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance); IRSOs will assist PRSOs in the archival of disposal records with CE, the RICS, etc. as appropriate. (T-0)

3.10.11. Organizations must be specifically permitted/licensed to receive waste containing RAM for (10 CFR 20.2108):

3.10.11.1. Treatment prior to disposal; (T-0)

3.10.11.2. Treatment or disposal by incineration; (T-0)

3.10.11.3. Decay in storage; (T-0)

3.10.11.4. Disposal at a land disposal facility licensed under 10 CFR Part 61; or (T-0)

3.10.11.5. Disposal at a geologic repository under 10 CFR Part 60 *Disposal of High-level Radioactive Waste in Geologic Repositories* or Part 63 *Disposal of High-level Radioactive Waste in a Geologic Repository at Yucca Mountain, Nevada*. (T-0)

3.11. Cessation of Operations and Terminating Permits.

3.11.1. If permitted operations cease, the Permittee must initiate decommissioning operations within two years of the date when use of the permitted material stops. (T-1) For permits that are anticipated to be in a no-operations and/or storage only status for an extended period of time (greater than one year) the Permittee should request a permit amendment to place the permit in a no-operations and/or storage only status. (T-2) This also applies to permits in decommissioning status for which decommissioning actions are in abeyance for an extended duration.

3.11.2. An organization shall request termination of their permit within 30 days after appropriate disposal or transfer of all regulated RAM and conclusion of any required decommissioning operations. (T-2)

3.11.3. If a permit is allowed to expire, the permit authorizations remain in full force and effect for *possession only* of material, but ceases for *use* of the material. Permits will remain in *possession only* status until formally terminated. (T-1)

3.11.4. If a decommissioning plan is required IAW 10 CFR 30.36, 40.47, and 70.38, it must be submitted to the RICS for approval. (T-1) Decommissioning plans will be reviewed by the RICS and offered to the NRC for their review.

3.11.5. Permittees shall execute the RICS-approved decommissioning plan and properly dispose of all RAM through AFRRAD. (T-1)

3.11.6. Permittees shall request an amendment to terminate a permit by submitting:

3.11.6.1. A completed NRC Form 314; (T-0)

3.11.6.2. The last inventory and confirmation that the RAM was transferred and received by another Permittee, or NRC or Agreement State licensee, or shipped to a licensed broker for disposal. (T-0) Note: Do not simply send documents showing stock listed items were turned into installation supply. Demonstrate that all materials received were either disposed of, or transferred properly, and no permitted materials remain associated with the permit; (T-0)

3.11.6.3. A final status survey, if required, to demonstrate no RAM or residual contamination above limits for unrestricted release as prescribed in NUREG 1575, NUREG 1757, *Consolidated Decommissioning Guidance*, Volume II, *Characterization, Survey, and Determination of Radiological Criteria*, and 10 CFR 20.1402; and (T-0)

3.11.6.4. For permits authorizing possession only sealed or plated sources, a final leak test demonstrating source integrity. (T-0) Additionally, for permits authorizing possession only of short half-life material meeting the requirements of paragraph 3.10.6.2, a radiation survey/report demonstrating that no residual radiation levels in RAM use or storage areas are above background IAW NUREG 1575, Appendix B, is required unless an alternative is approved by the RICS. (T-0)

3.11.7. Upon termination of the permit, the RICS will determine the records required. Documents such as records of personnel exposure investigations, spills and contamination are of relevancy. Store the files electronically for permanent archival storage after permit termination (i.e., ref 10 CFR Part 35, etc.). (T-0; or T-1)

3.12. Reporting Radioactive Material Incidents and Mishaps.

3.12.1. Follow reporting criteria and time limits in 10 CFR Parts 19 (notices, instructions, and reports to workers), 20 (radiation protection standards), 21 (defects and noncompliance), 30 (byproduct material), 31 (general byproduct license), 32 (specific byproduct license), 33 (broad scope byproduct license), 34 (industrial radiography), 35 (medical use), 36 (irradiators), 37 (increased controls), 39 (well logging), 40 (source material license), 51 (environmental protection), 70 (special nuclear material license), 71 (transportation), and 74 (control/accounting of SNM). (T-0) Make reports to the RICS, not the NRC! (T-1) Work with the IRSO and RICS to know which parts apply to your RAM (as many will not apply to your situation); consult RICS guidance and web-based material. (T-2) Note: additional information may be found under the title "AFI 40-201 Support Documents" by accessing: **https://www.my.af.mil/gcss-af/USAF/site/AF_BE** or **https://kx2.afms.mil/kj/kx5/radiationprograms**.

3.12.2. The Permittee, the PRSO, and the IRSO must reinforce each other to ensure the RICS receives reports required by 10 CFR. (T-1) Report an incident if you have any reservations about whether reporting is required. (T-1)

3.12.3. Report incidents initially by telephone (installations outside the United States may report by message/email) and confirm by fax or message. (T-1) Report to the RICS by calling DSN 761-6946, Commercial (703) 681-6946, emailing **usaf.pentagon.saf-aa.mbx.usaf-ric@mail.mil**, or faxing to DSN 761-6010 (or 6066), Commercial (703) 681-6010 (or 6066). (T-1)

3.12.3.1. To report after normal duty hours, call the Andrews Regional Command Post, DSN 858-5058, or (301) 981-5058. (T-1) Give your name, organization, DSN and commercial phone numbers. (T-1) State that you are calling with a "radioactive material incident report" and ask for the AFMSA/SG3PB (RICS) duty officer. (T-1)

3.12.3.2. Inform the Installation Chief of Safety, MAJCOM/SEW, and IRSO of any INRAD or 91(b) material mishaps IAW AFI 91-204, *Safety Investigations and Reports.* (T-2)

3.12.3.3. The Unit Radiation Safety Officer (URSO) or Weapons Safety Officer, IAW AFI 91-108, will inform HQ AFSEC/SEW through AF Safety Automated System of any *abnormal exposures and/or suspected overexposures* to personnel or the public from a mishap involving INRAD or 91(b) material. (T-2)

3.12.4. Time limits for reports begin when the event occurs or is first discovered. Incidents requiring an immediate report must be forwarded within three (3) hours. (T-1) Realize the RIC/S must contact the NRC in turn—make every effort to report well before the stated reporting suspense. (T-1) Include as much of the information outlined in **Attachment 6** and RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance) as is available, but do not delay reporting if you have not collected all the pertinent information. (T-0)

3.12.5. The RICS directs follow-on written reports or information needed to comply with NRC regulations.

3.12.6. A copy of all written reports must be forwarded to the IRSO, Installation Commander, MAJCOM Bioenvironmental Engineer (BEE), MAJCOM functional office and AFIA/SG. (T-2)

3.12.7. The requirements in paragraphs 3.12.1 through 3.12.6 are separate from the reporting requirements of AFI 10-206, *Operational Reporting*, and AFI 91-204. This instruction does not prescribe the reporting requirements of incidents or mishaps involving only nuclear weapons, nuclear weapons parts, reactors and fuel assemblies, and space systems exempted from NRC regulatory authority under Section 91(b) of the AEA.

3.12.8. EPA regulations require reporting releases of RAM characterized as hazardous substances under 40 CFR Part 302 *Designation, Reportable Quantities, and Notification*. (T-0) The EPA lists some of the chemical forms of radionuclides and many of the non-radioactive chemical constituents that may be part of the release with radionuclides as a result of an industrial process. Report spills of radionuclides or mixed hazardous materials to the environment IAW AFI 10-2501. (T-2) These reports will typically be separate from the reporting requirements described in this instruction.

3.12.9. Radiological incidents that could potentially expose members of the general public or accidental releases of RAM to the environment must be reported to civilian authorities (Emergency Planning and Community Right-to-Know Act). (T-0) The IRSO provides information, approved by the installation commander, and sent through the installation public affairs office, of these types of incidents. (T-2) Security restrictions on classified or sensitive information shall be adhered to except in cases of immediate risk to health and/or significant environmental impact. (T-0)

3.12.10. Safeguard classified information when making reports. (T-0) Special care shall be taken when reporting and investigating an incident or mishap under AFI 91-204 to ensure that reports forwarded to the RICS do not contain classified or sensitive unclassified information. All reports involving RAM exceeding NRC quantities of concern shall be handled as sensitive information and transmitted as directed by the RICS (10 CFR Part 37 and NRC Order EA 05-090, ORDER IMPOSING INCREASED CONTROLS). (T-0) All information will be properly marked and secured from unauthorized access. (T-0)

3.12.11. By Federal law, the USAF must give the NRC certain types of information normally protected from release. (T-0) When investigating the cause of an incident or mishap and the involvement of persons for reports under this instruction, do not compromise confidentiality of information (10 CFR Chapter I, Privacy Act of 1974, and Title 5 of the United States Code [5 U.S.C.], **Chapter 5**, *Administrative Procedure*). (T-0)

3.13. Response to Radioactive Materials Incidents and Mishaps.

3.13.1. Comply with requirements in AFIs 10-2501, 41-106, *Medical Readiness Program Management*, 91-204, and this instruction. (T-1)

3.13.2. Acceptance of any RAM from civilian sources (e.g., scrap yards, private individuals) is prohibited unless approved by the RICS. (T-1)

3.13.3. Ensure adequate precautions are taken to prevent possible radiological contamination of personnel or equipment, and to minimize the spread of any contamination that might be present. Protective actions include:

3.13.3.1. Ensure response personnel use appropriate protective equipment (e.g., gloves, respirators, or protective clothing) when responding to mishaps potentially involving RAM. (T-3)

3.13.3.2. Ensure that appropriate radiation detection equipment is available and personnel are properly trained to use it. (T-3)

3.13.3.3. If radioactive contamination is detected, take action as soon as possible to identify, notify and assess those initial responders or other personnel who might have been contaminated during initial life-saving operations. (T-3)

3.13.3.4. Collect and segregate RAM at the incident/mishap site after immediate life-saving and incident control actions are complete. (T-3)

3.13.4. When responding to aircraft incidents, determine whether or not cargo and/or aircraft components contain RAM. (T-3) Consult USAFSAM/OE guidance and Technical Order 00-105E-9, *Aerospace Emergency Rescue and Mishap Response Information*, **Chapter 3**, *Hazardous Materials*. (T-3) Examples include:

3.13.4.1. Licensed or permitted RAM or items containing licensed or permitted RAM in the cargo.

3.13.4.2. Munitions, ballast and counterweights made of DU.

3.13.4.3. Magnesium-thorium in airframe and engine parts.

3.13.4.4. Thorium-coated lenses and static elimination sources (Po-210) in target designators.

3.13.4.5. Radioluminescent exit markers, dials, and gauges containing tritium (H-3) or radium (Ra-226).

3.13.4.6. Americium-241 sources in Low Altitude Navigation and Targeting Infrared for Night (LANTIRN™) or Sniper® systems, etc. Note: Consult the Reliability, Availability, and Maintainability Support System for Electronic Combat Pods (RAMPOD) as the official inventory system of record for all Air Force externally carried pods. (T-1) The RAMPOD is an integrated information system that collects, reports, and maintains real-time reliability and availability data for electronic pods. Status on a RAMPOD system indicating that a POD has arrived at its destination will be considered a sufficient confirmation of receipt. CAUTION: Sniper® and LANTIRN™ Pod glass shields contain embedded Thorium--use precaution on cleaning and packaging if shattered.

3.13.4.7. Strontium-90 in Integrated Blade Inspection Systems (IBIS).

3.13.5. Electron tubes, ignition and spark gaps, or other items may contain exempt quantities of radionuclides and present a minimal hazard risk when damaged. Use gloves when handling, and bag or wrap damaged items for proper disposal. (T-3)

3.14. Investigating Radioactive Materials Incidents and Accidents.

3.14.1. The Permittee is responsible for investigating, performing a root cause analysis IAW accepted AF methodologies (see also *DOE-NE-STD-1004-92, DOE Guideline: Root Cause Analysis Guidance Document*, **http://energy.gov/ehss/downloads/doe-ne-std-1004-92**), and preparing a report on events listed in paragraph 3.12 IAW 10 CFR Chapter I, this AFI, and

RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance). (T-0) The PRSO, assisted by the IRSO, normally performs the investigation. (T-2)

3.14.2. The Commander of the affected organization is responsible for the investigation and report for reportable events involving non-permitted RAM. (T-1) The IRSO normally performs the investigation. (T-2)

3.14.3. Investigating a mishap or incident according to AFI 91-204 may generate information requiring a separate report that can be forwarded to the NRC. Reference paragraphs 3.12.10 and 3.12.11. about protecting classified information. Consult with the RICS. (T-2)

3.14.4. Forward reports to organizations listed in paragraph 3.12.6. (T-1)

3.14.5. The RICS will decide when an investigation of an event involving RAM governed by this instruction is complete.

3.14.6. The NRC, AFIA/SG, or the RICS reserves the right to independently investigate an incident or mishap involving permitted or NRC-licensed RAM to confirm USAF reports or to decide whether the installation violated permit conditions, this instruction or Federal regulations (reference paragraph 3.16).

3.15. Retaining Records.

3.15.1. Records shall be retained for the receipt, storage, distribution, use, transfer, disposal and incident involving permitted or licensed RAM IAW criteria in 10 CFR Parts 19 (notices, instructions, and reports to workers), 20 (radiation protection standards), 21 (defects and noncompliance), 30 (byproduct material), 31 (general byproduct license), 32 (specific byproduct license), 33 (broad scope byproduct license), 34 (industrial radiography), 35 (medical use), 36 (irradiators), 37 (increased controls), 39 (well logging), 40 (source material license), 51 (environmental protection), 70 (special nuclear material license), 71 (transportation), and 74 (control/accounting of SNM); and, as implemented in **https://www.my.af.mil/afrims/afrims/afrims/rims.cfm**. (T-0) Note: additional information may be found under the title "AFI 40-201 Support Documents" by accessing: **https://www.my.af.mil/gcss-af/USAF/site/AF_BE** or **https://kx2.afms.mil/kj/kx5/radiationprograms**.

3.15.2. Work with the IRSO and RICS to know which parts apply to your RAM (as many will not apply to your situation); consult RICS guidance and web-based material. (T-1) If a conflict exists, then maintain records with the more stringent retention period. (T-0) Reference RIC written directives, RIC website content (secondary guidance), and/or USAFSAM/OE technical guidance (secondary guidance) for more information on retention periods. (T-1)

3.16. Inspecting Permit Holders and Enforcing Compliance.

3.16.1. Inspections: Inspections of Permittees' issued USAF RAM permits shall be conducted by AFIA/SG, the RICS, and/or the NRC. Unannounced inspections are routinely conducted to assess compliance with permit conditions, AF instructions, and Federal regulations. Detailed inspection policy for permits is provided in Attachment 6.

3.16.1.1. The permit type and scope sets the frequency and content of routine AFIA/SG inspections.

3.16.1.2. An inspection priority code is assigned to each permit (refer to the cover letter issuing the permit or permit renewal). A Priority 1 permit is a high priority permit inspected annually; a Priority 3 permit is inspected every three years. More frequent inspections may be made based on scale of economies during travel, to enforce compliance, evaluate a specific problem or follow-up to determine if corrective actions have been taken.

3.16.1.3. Copies of USAF inspection reports are forwarded to:

3.16.1.3.1. The Permittee and PRSO;

3.16.1.3.2. The owning MAJCOM/SG;

3.16.1.3.3. The RICS (AFMSA / SG3PB); and

3.16.1.3.4. The NRC, by the RICS, when approved according to AFI 90-201.

3.16.1.4. Mark, handle and safeguard these reports according to AFI 90-201.

3.16.1.5. Permittees must report corrective actions for noncompliance IAW this instruction and AFIA/SG. (T-1)

3.16.1.6. The NRC regional offices conduct permit compliance inspections without notice as part of the NRC's continual assessment of the USAF's permitting and inspection program.

3.16.1.6.1. NRC inspections may be concurrent with, or separate from, the USAF's permit compliance inspections.

3.16.1.6.2. The NRC will send a formal inspection report to the RICS with an NOV for any areas of non-compliance noted during an NRC inspection.

3.16.1.6.3. The RICS will subsequently send a copy of the inspection to the Permittee, and when required, request a written response detailing any corrective actions for NOVs noted.

3.16.1.6.4. The RICS will provide copies of both the NRC inspection report and any written response from the Permittee to AFIA/SG.

3.16.2. Enforcement: The RICS may take enforcement action as a result of reported incidents, inspection findings, or identified violations. Enforcement policy details are provided in Attachment 7.

3.16.2.1. The RICS takes administrative enforcement actions including:

3.16.2.1.1. Issuances of NOVs;

3.16.2.1.2. Adjusting AFIA/SG findings and NOVs.

3.16.2.1.3. Suspending or rescinding authority to possess or use RAM;

3.16.2.1.4. Implementing additional control measures to permits; and/or

3.16.2.1.5. Rescinding a person's authority to use or supervise use of RAM;

3.16.2.2. Commanders including Permittees retain responsibility for the discipline of individuals according to the Uniform Code of Military Justice (UCMJ). (T-3)

3.16.2.3. The NRC can also enforce regulatory compliance IAW 10 CFR Part 2 *Agency Rules of Practice and Procedure*. The NRC's enforcement policy can be found at: **http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html**. The NRC's enforcement procedures are found at: **http://www.nrc.gov/about-nrc/regulatory/enforcement/guidance.html**. Note: The NRC also issues press releases on enforcement actions.

3.16.2.4. Approval and acceptance of Permittee corrective actions are at the discretion of the RICS.

3.17. Managing Allegations.

3.17.1. Employees have a right and responsibility to report unsafe practices, or those that may be in violation of permit conditions, this instruction, or applicable Federal regulations. (T-1) Employees shall report their concerns immediately to their supervisor. (T-1) If resolution of the issue cannot be achieved, then the employees can make allegations directly to the RICS or the NRC (reference NUREG/BR-0240, *Reporting Safety Concerns to the NRC*). All Permittee employees are required to be aware of NRC Form 3 that must be posted for employees to view (10 CFR Part 19). (T-0) Attachment 8 provides details on management of allegations.

3.17.2. For allegations against the RICS or SAF/IG, individuals may contact the NRC representative in their region.

3.18. RICS Forms. The RICS prescribes a custom form for all template permit actions. The *Request for Template Permit Action* form may change based on regulatory requirements. It can be obtained by writing or calling the RICS, or by accessing: **https://www.my.af.mil/gcss-af/USAF/site/AF_BE** or **https://kx2.afms.mil/kj/kx5/radiationprograms**.

Chapter 4 (Added-45SW)

POTENTIAL OVEREXPOSURE PROCEDURES

4.1. (Added-45SW) Unit radiation safety officers (URSOs) and unit laser safety officers (ULSOs) shall incorporate emergency procedures into workplace-specific training.

4.2. (Added-45SW) Workers shall notify their supervisor whenever a suspected overexposure occurs related to RAM, ionizing radiation-generating device, EMFR emitter, or lasers. Because certain types of overexposures may result in immediate adverse health effects, notification and response should be taken as soon as possible.

4.3. (Added-45SW) Devices should be shut off and put out of service, if applicable.

4.4. (Added-45SW) Radioactive materials should be secured and stored according to procedures, if safe to do so.

4.5. (Added-45SW) The potentially overexposed member shall immediately seek medical care.

4.5.1. **(Added-45SW)** Military and DOD civilian workers shall report to the 45 Medical Group Clinic during normal duty hours (i.e. Monday through Friday, 0730 – 1630 hrs).

4.5.2. **(Added-45SW)** Potential overexposures to ionizing and non-ionizing radiation can threaten life, limb, or eyesight. Therefore, military and federal workers shall seek care at a local emergency room if the exposure occurs after normal duty hours.

4.5.2.1. **(Added-45SW)** The member shall contact the Command Post (494-7001) as soon as practical to alert the IRSO or on-call BE technician of the incident.

4.5.2.2. **(Added-45SW)** The member shall contact their Primary Care Manager and the IRSO the next duty day.

4.6. (Added-45SW) The supervisor, URSO, or ULSO shall assist the IRSO by gathering information related to the incident. This person will ensure privacy act information is safeguarded in accordance with AFI 33-332, *Air Force Privacy and Civil Liberties Program*. Information gathered will include:

4.6.1. **(Added-45SW)** Name, rank, and last 4 digits of the social security number of the potentially exposed individual.

4.6.2. **(Added-45SW)** The radiation source (e.g. radioisotope and activity, x-ray machine settings, laser, etc.).

4.6.3. **(Added-45SW)** Description of the incident.

4.6.4. **(Added-45SW)** Duration of suspected exposure.

4.6.5. **(Added-45SW)** Worker location and distance in relation to radiation source.

4.6.6. **(Added-45SW)** Any protective actions and controls that were in use (i.e. shields, dosimeters, cordons, beacons, etc.).

Chapter 5 (Added-45SW)

WORKPLACE-SPECIFIC TRAINING

5.1. (Added-45SW) Workplace-specific training shall be developed and maintained by the URSO or ULSO, if required by applicable AFI, with the assistance of the IRSO.

5.2. (Added-45SW) URSOs and ULSOs will provide the IRSO current copies of their training materials.

5.3. (Added-45SW) Training materials shall be reviewed annually and updated, as necessary, by the URSO or ULSO to ensure compliance with the following guiding references:

5.3.1. **(Added-45SW)** RAM and ionizing radiation-generating devices that potentially expose workers to 100 mrem in a year:

5.3.1.1. **(Added-45SW)** Workplace-specific training shall meet, at a minimum, all applicable items defined by AFI 48-148, paragraph 3.3.

5.3.1.2. **(Added-45SW)** URSOs shall incorporate any relevant radiation surveillance, health risk assessments, and reports from BE.

5.3.2. **(Added-45SW)** Workplaces with personnel that have the potential to exceed the Lower Tier Maximum Permissible Exposures (MPEs) defined in AFI 48-109, *Electromagnetic Field Radiation (EMFR) Occupational and Environmental Health Program*, Table A2.2:

5.3.2.1. **(Added-45SW)** If the IRSO has determined the workplace has the potential to exceed the Lower Tier MPEs, workplace-specific training shall meet requirements directed by AFI 48-109, paragraph 4.4.

5.3.2.2. **(Added-45SW)** URSOs shall incorporate any relevant radiation surveillance, health risk assessments, and reports from BE.

5.3.3. **(Added-45SW)** Workplaces with Class 3B or Class 4 FDA-Compliant Lasers or military specific lasers:

5.3.3.1. **(Added-45SW)** Workplace-specific training shall meet requirements directed by AFI 48-139, paragraph 3.2.

5.3.3.2. **(Added-45SW)** URSOs shall incorporate any relevant radiation surveillance, health risk assessments, and reports from BE.

THOMAS W. TRAVIS, Lieutenant General, USAF, MC, CFS
Surgeon General

(45SW)

WAYNE R. MONTEITH, Brigadier General, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 10-206, *Operational Reporting, 6 Sep 11*

AFI 10-208, *Air Force Continuity of Operations (COOP) Program, 15 Dec 11*

AFI 10-245, *Antiterrorism (AT), 21 Sep 12*

AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations, 24 Jan 07, corrective actions applied, 10 May 13*

AFI 13-212, *Range Planning Operations, 16 Nov 07, certified current, 6 Jan 10*

AFI 23-101, *Air Force Materiel Management, 8 Aug 13*

AFI 24-210 (I), *Package of Hazardous Material, 22 Oct 07*

AFI 32-7001, *Environmental Management, 4 Nov 2011*

AFI 32-7020, *The Environmental Restoration Program, 7 Feb 01*

AFI 32-7040, *Air Quality Compliance and Resource Management, 27 Aug 07*

AFI 32-7041, *Water Quality Compliance, 28 Jan 10*

AFI 32-7042, *Waste Management, 15 Apr 09, incorporating change, 31 Mar 10*

AFI 32-7047, *Environmental Compliance, Release, and Inspection Reporting, 15 Feb 12*

AFI 32-7086, *Hazardous Materials Management, 29 Dec 09*

AFI 33-322, *Records Management Program, 4 Jun 12, incorporating changes, 9 May 13*

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AFI 33-332, *The Air Force Privacy and Civil Liberties Program, 5 Jun 13*

AFI 33-360, *Publications and Forms Management, 25 Sep 13*

AFI 33-364, *Records Disposition—Procedures and Responsibilities, 22 Dec 06*

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(Added-45SW) AFI 48-109, *Electromagnetic Field Radiation (EMFR) Occupational and Environmental Health Program*

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AFI 48-144, *Drinking Water Surveillance Program, 28 Sep 10*

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AFI 48-148, *Ionizing Radiation Protection, 21 Sep 11*

AFI 63-101/20-101, *Integrated Life Cycle Management, 7 Mar 13, with memo, 20 Jun 13*

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AFI 91-101, *Air Force Nuclear Weapons Surety Program, 13 Oct 10, incorporating change, 28 Sep 11*

AFI 91-108, *Air Force Nuclear Weapons Intrinsic Radiation and 91(B) Radioactive Material Safety Program, 21 Sep 10, incorporating change, 14 Oct 11*

AFI 91-110, *Nuclear Safety Review and Launch Approval for Space or Missile Use of*

Radioactive Material and Nuclear Systems, 28 Jun 02

AFI 91-202, *The U.S. Air Force Mishap Prevention Program, 5 Aug 11, incorporating change, 20 Mar 12, with guidance memo, 1 Mar 13*

AFI 91-204, *Safety Investigations and Reports, 24 Sep 08, with guidance memo, 8 Apr 13*

AFJI 23-504, *Radioactive Commodities in the DOD Supply System, 10 Mar 04*

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AFMAN 10-2502, *Air Force Incident Management System (AFIMS) Standards and Procedures, 25 Sep 09, certified current, 26 Sep 11*

AFMAN 10-2503, *Chemical Biological, Radiological Nuclear and High Yield Explosive*

(CBRNE) *Operations, 7 Jul 11, incorporating change 1, 31 May 12*

AFMAN 10-2504, *Air Force Incident Management Guidance for Major Accidents and Natural Disasters, 13 Mar 13*

AFMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments, 3 Dec 12*

AFMAN 33-363, *Management of Records, 1 Mar 08*

AFMAN 48-125, *Personnel Ionizing Radiation Dosimetry, 4 Oct 11*

AFPD 10-2, *Readiness, 6 Nov 12*

AFPD 10-25, *Emergency Management, 26 Sep 07, certified current, 23 Jun 10*

AFPD 13-2, *Air Traffic, Airfield, Airspace and Range Management, 7 Aug 07*

AFPD 23-1, *Materiel Management, 15 Feb 11*

AFPD 24-2, *Preparation and Movement of Air Force Materiel, 27 Apr 11*

AFPD 32-70, *Environmental Quality, 20 Jul 94*

AFPD 33-3, *Information Management, 8 Sep 11*

AFPD 40-2, *Radioactive Materials (Non-Nuclear Weapons), 15 Mar 07*

AFPD 41-1, *Health Care Programs and Resources, 15 Apr 94*

AFPD 44-1, *Medical Operations, 1 Sep 99*

AFPD 48-1, *Aerospace Medicine Enterprise, 23 Aug 11*

AFPD 63-1/20-1, *Integrated Life Cycle Management, 3 Jul 12*

AFPD 65-6, *Budget, 1 May 98*

AFPD 84-1, *Historical Information, Property, and Art, 16 Sep 05*

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AFPD 90-8, *Environment, Safety, and Occupational Health Management and Risk Management, 2 Feb 12*

AFPD 91-1, *Nuclear Weapons and Systems Surety, 28 Jan 13*

AFPD 91-2, *Safety Programs, 24 Jul 12*

DODD 3150.02, *DOD Nuclear Weapons Surety Program, 24 Apr 13*

DODD 3150.08, *DOD Response to Nuclear and Radiological Incidents, 20 Jan 10*

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DODD 5400.11, *DOD Privacy Program*, 8 May 07, incorporating change, *1 Sep 11*

DODD 6050.07, *Environmental Effects Abroad of Major Department of Defense Actions*, 5 Mar 04

DODI 4715.02, *Regional Environmental Coordination, 28 Aug 09*

DODI 4715.05, *Environmental Compliance at Installations Outside the United States, 1 Nov 13*

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DODI 4715.17, *Environmental Management Systems, 15 Apr 09*

DODI 5000.02, *Operation of the Defense Acquisition System, 25 Nov 13*

DODI 6055.01, *DOD Safety and Occupational Health (SOH) Program, 19 Aug 98*

DODI 6055.05, *Occupational and Environmental Health (OEH), 11 Nov 08*

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Title 29, Code of Federal Regulations (29 CFR), Chapter XVII, *Occupational Safety and Health Administration, Department of Labor (***http://www.ecfr.gov/***)*

Title 40, Code of Federal Regulations (40 CFR), Chapter I, *Environmental Protection Agency* (**http://www.ecfr.gov/** *)*

Title 49, Code of Federal Regulations (49 CFR), Chapter I, *Pipeline and Hazardous Materials Safety Administration, Department of Transportation (***http://www.ecfr.gov/** *)*

Title 5, United States Code (5 U.S.C.), **Chapter 5**, *Administrative Procedure (***http://uscode.house.gov**, *or* **http://uscodebeta.house.gov***)*

Title 10, United States Code (10 U.S.C.), **Chapter 47**, *Uniform Code of Military Justice (***http://uscode.house.gov**, *or* **http://uscodebeta.house.gov***)*

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Title 42, United States Code (42 U.S.C.), **Chapter 23**, *Development and Control of Atomic Energy (***http://uscode.house.gov**, *or* **http://uscodebeta.house.gov***)*

Title 42, United States Code (42 U.S.C.), **Chapter 82**, *Solid Waste Disposal (***http://uscode.house.gov**, *or* **http://uscodebeta.house.gov***)*

Title 42, United States Code (42 U.S.C.), **Chapter 85**, *Air Pollution Prevention and Control (***http://uscode.house.gov**, *or* **http://uscodebeta.house.gov***)*

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Title 42, United States Code (42 U.S.C.), **Chapter 116**, *Emergency Planning and Community Right-to-Know (***http://uscode.house.gov**, *or* **http://uscodebeta.house.gov***)*

Title 49, United States Code (49 U.S.C.), **Chapter 51**, *Transportation of Hazardous Material (***http://uscode.house.gov**, *or* **http://uscodebeta.house.gov***)*

Prescribed Forms

(**Added-45SW**) 45 SW Form 2245, *Request to Procure/Transport/Use Electromagnetic Field Radiation (EMFR) Emitter*

(**Added-45SW**) 45 SW Form 2254, *Request to Procure/Transport/Use Ionizing Radiation-Generating Machine/Device*

(**Added-45SW**) 45 SW Form 2255, *Request to Procure/Transport/Use Radioactive Materials*

(**Added-45SW**) 45 SW Form 2244, *Request to Procure/Transport/Use Laser Device*

None

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

DOE/NRC Form 741, *Nuclear Material Transaction Report*

DOE/NRC Form 742, *Material Balance Report*

NRC Form 3, *Notice to Employees*

NRC Form 241, *Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Jurisdiction or Offshore Waters* (NRC Reciprocity Form)

NRC Form 313, *Application for Materials License*

NRC Form 314, *Certificate of Disposition of Materials*

NRC Form 483, *Registration Certification-In Vitro Testing with Byproduct Material Under General License*

NRC Form 742 C, *Physical Inventory Listing*

Abbreviations and Acronyms

AEA—Atomic Energy Act of 1954, as amended

(Added-45SW) 45 SW—45 Space Wing

AFRRAD—Air Force Radioactive Recycling and Disposal Office

ALARA—As Low As Reasonably Achievable

(Added-45SW) BE—Bioenvironmental Engineering

CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act

CFR—Code of Federal Regulations

CRCPD—Conference of Radiation Control Program Directors (a professional organization made up of the Directors and staffs of State regulatory programs)

DOD—Department of Defense

DOE—Department of Energy

DOT—Department of Transportation

DU—Depleted uranium

(Added-45SW) EMFR—Electromagnetic Field Radiation

EPA—Environmental Protection Agency

(Added-45SW) FDA—Food and Drug Administration

(Added-45SW) ILSO—Installation Radiation Laser Officer

IRSO—Installation Radiation Safety Officer

LLRW—Low Level Radioactive Waste

MML—Master Materials License

(Added-45SW) mrem—millirem

NARM—Naturally Occurring or Accelerator Produced RAM

NOV—Notice of Violation

NRC—Nuclear Regulatory Commission

NSN—National Stock Number

PRSC—Permit Radiation Safety Committee

PRSO—Permit Radiation Safety Officer

RADIAC—Radioactivity Detection Indication and Computation (refers to radioactivity detection instrumentation)

(Added-45SW) RAM—Radioactive Material

RAMMIS—Radioactive Materials Management Information System

RCRA—Resource Conservation and Recovery Act

RIC—Radioisotope Committee

RICS—Radioisotope Committee Secretariat

RSC—Radiation Safety Committee

RSO—Radiation Safety Officer

(Added-45SW) RUA—Radiation Use Authorization

SNM—Special Nuclear Material

SSDR—Sealed Source and Device Registry

T.O—Technical Order

UCMJ—Uniform Code of Military Justice

U.S.C—United States Code

(Added-45SW) ULSO—Unit Laser Safety Officer

(Added-45SW) URSO—Unit Radiation Safety Officer

Terms

91(a) Material—RAM exempted from NRC licensing controls under Section 91(a) of the AEA of 1954, as amended, in the interest of national defense, under the possession of the DOE.

91(b) Material—RAM exempted from NRC licensing controls under Section 91(b) of the AEA of 1954, as amended, in the interest of national defense, under the possession of the DOD. These include materials in nuclear weapons.

Accelerator Produced Radioactive Material—RAM produced as the result of operating a particle accelerator.

Agreement State—Any state, territory, or possession of the United States that, by agreement with the NRC, has assumed regulatory authority over byproduct, source, and certain small quantities of SNM.

Allegation—Declaration, statement or assertion of impropriety or inadequacy associated with NRC or USAF regulated activities, the validity of which has not been established.

Alternate Permit Radiation Safety Officer—A person, named on the USAF RAM Permit, who is qualified by education or training, to act as PRSO when the primary PRSO is absent. Unless otherwise requested by the Permittee, the alternate PRSO becomes the primary PRSO when the named primary PRSO leaves the organization.

Annual—Recurring, done, or performed every year (i.e., every 12 months) at intervals not to exceed 1 year; or, once per year, at about the same time each year, plus or minus one calendar month.

As Low As Reasonably Achievable (ALARA)—IAW the US Nuclear Regulatory Commission (NRC), ALARA means making every reasonable effort to maintain exposures to ionizing radiation as far below the dose limits as practical, consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest.

Authorized User—For non-medical permits, authorized users are approved by the RSC or in the absence of an RSC, the RICS based on a review of qualifications. For medical permits, IAW 10 CFR 35.2: a physician, dentist or podiatrist who meets the requirements in 10 CFR 35.59, and 35.190(a), 35.290(a), 35.390(a), 35.392(a), 35.394(a), 35.490(a), 35.590(a) or 35.690(a), and is an authorized user as specified on a USAF RAM permit.

Byproduct Material—RAM (except source or SNM) yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or using source or SNM. The definition of byproduct material has changed with the Energy Policy Act of 2005 to include some forms of naturally occurring or accelerator produced RAM (reference AFPD 40-2).

Exclusive Federal Jurisdiction—Property under the exclusive control or ownership of the Federal government that has been ceded legislative power by the state or has had such power reserved from grants to the states.

General License—The NRC and/or an Agreement State issues a general license for individuals to acquire and use specific devices that have been manufactured and distributed according to the

specifications approved by the NRC or the Agreement State. Individuals do not need to apply for this license; it is inherent in the distribution of the device. However, they must comply with the requirements for labeling, instructions for use, and proper storage or disposition of the device IAW 10 CFR Part 31.5.

Human Use—The internal or external administration of RAM to humans.

Incident—For purpose of this instruction, an incident is any event involving RAM that is not defined as a mishap or medical event, or that may result in adverse public reaction. This includes weather induced events, attacks against sensitive information or spontaneous/ unforeseen failures of equipment or material.

(Added-45SW) Ionizing Radiation—Generating Device – Devices that generate an x-ray beam, such as medical x-ray units, non-destructive inspection equipment, and lead-based paint analyzers.

Items—Instruments, manufactured articles or major end items constructed of or having RAM as a component part, often assigned a NSN, normally procured, stored and distributed through USAF and Department of Defense logistical supply systems. Items include but are not limited to such devices as chemical agent detectors/monitors (CADs/CAMs), RADIAC sets, lensatic/military compasses, dials and gauges. Items are not considered to include any loose RAM, radioactive contamination on other materials or in soil, or any material exhumed from a radioactive burial site.

License—Written authorization from the NRC or an Agreement State to acquire, receive, use, store or transfer byproduct, source, or SNM. Licenses will be either (1) General License published in NRC or Agreement State Regulations, that is effective without any need to send an application to, or that is effective to any applicant on registration with, the NRC or an Agreement State or (2) Specific License issued by the NRC or Agreement State to a named applicant who has filed an application authorizing acquisition, ownership, receipt, storage, use, transfer, and disposal of chemical or physical forms of radioisotopes specified in the license. This license has an expiration date renewable on application to the issuing authority. The license may be limited in scope (authorizing only certain specific radioisotopes for limited users) or broad (authorizing the use of a wide variety of radioisotopes without regard to form, quantity, or use).

Medical Event—Any event that meets the criteria of 10 CFR 35.3045(a).

Mishap—For purposes of this instruction, a mishap is defined in AFI 91-202, *The U.S. Air Force Mishap Prevention Program*. It is an event involving human acts of omission or commission involving a nuclear reactor, radioisotope power system, or RAM resulting in any of the following:

1) A loss of control of RAM that presents a hazard to life, health, or property. This includes loss of control that may result in any person in an unrestricted area exceeding the limits for exposure to ionizing radiation as stated in Title 10, CFR, Part 20, *Standards for Protection Against Radiation*.
2) Any unexpected event involving RAM or radiation exposure that is serious enough to warrant the interest or action of officials or agencies outside the USAF. This category includes events: having domestic or international implications, those that may cause inquiries by the public or press, and those requiring immediate notification to the NRC under Title 10, Code of Federal Regulations, Part 20, Standards for Protection Against Radiation.

NUREG—Technical reports on various topics related to the regulation of nuclear energy published by Nuclear Regulatory Commission.

Naturally Occurring and Accelerator Produced Radioactive Material (NARM)—Discrete sources of radium-226 or material made radioactive by use of a particle accelerator that is produced for use by commercial, medical or research activities. Examples include fluoride-18, cobalt-57, and iodine-123. Also included is any discrete source of naturally occurring RAM (other than source material) that the NRC determines could pose a threat to public health or security.

Nuclear Reactor—A facility using fissile materials in a self-supporting chain reaction (nuclear fission) to produce heat or radiation for both practical applications and research and development.

Nuclear Regulatory Commission—An agency established by Title II of the Energy Reorganization Act of 1974 (Public Law 93-438) to regulate byproduct, source, and SNM as provided for by the Atomic Energy Act of 1954, as amended. Within the NRC, final authority rests with the five member Commission acting as a body.

Particle Accelerator—A device that accelerates electrically charged particles to high velocities, for the purpose of inducing high energy reactions or producing high energy radiation.

Permit—Shortened term for USAF or USN RAM Permit. See USAF RAM Permit.

Permittee—The Commander, civilian equivalent or designated representative of a USAF organization that is responsible for and controls the radiation safety program for RAM covered by this instruction and has the authority to provide the resources necessary to achieve regulatory compliance.

Prescribed Dosage—The quantity of radiopharmaceutical activity as documented in (1) a written directive or (2) in the diagnostic clinical procedures manual or in any proper record according to the directions of the authorized user for diagnostic procedures.

Prescribed Dose—(1) For gamma stereotactic radiosurgery: The total dose as documented in the written directive, (2) For brachytherapy: Either the total source strength and exposure time or the total dose, as documented in the written directive.

(Added-45SW) Radiation Protection Officer—An alternate term for "Radiation Safety Officer" used at Kennedy Space Center and some private sectors. [Note: "Radiation Safety Officer" is the adopted term in the USAF.]

Radiation Safety Committee—A group of individuals appointed by a Permittee to oversee all uses of permitted byproduct material. The RSC must include an authorized user of each type of use permitted, the RSO(s), a representative of the nursing service (for medical RSCs only), and a representative of management who is neither an authorized user nor an RSO. RSCs may include other members the licensee considers appropriate.

Radiation Safety Officer—An individual with specific education, military training, and professional experience in radiation protection practice appointed by a Permittee or the USAF Radioisotope Committee to manage radiation safety programs. The term "Radiation Safety Officer" is a functional title and does not denote a commissioned status or specialty code. The RSO must have the education, military training, and professional experience needed for the job. Take care when addressing RSO qualifications and duties to distinguish between IRSO and

PRSOs. Individuals appointed as the IRSO might not always have the specific technical experience and training needed to qualify as the PRSO. See Attachment 3 for RSO training requirements in the USAF.

(Added-45SW) Radiation Use Authorization—A program that is currently administered at Kennedy Space Center. Radiation Use Authorizations (RUAs) were formerly implemented at 45 SW and mission partners, but has since been rescinded; the programmatic elements of RUAs are directed by applicable Air Force Instructions, rendering the RUA program as redundant.

Radiation Worker—An individual engaged in activities licensed or regulated by the NRC (or RIC) and controlled by a licensee (or Permittee) or regulated entity, but does not include the licensee (or Permittee) or regulated entity, IAW 10 CFR Part 19 *Notices, Instructions, and Reports to Workers: Inspection and Investigations*.

Radioactive Item—A single unit or article constructed of or having RAM, greater than exempt quantities, as a component part.

Radioactive Material (RAM)—Material with nuclei, because of their unstable nature, that decay by emission of ionizing radiation. The radiation emitted may be alpha particles, beta particles, gamma rays, X-rays, or neutrons.

Radioactive Waste—Waste that contains RAM. Radioactive waste can be generally classed in one of four categories:

Radioactive Waste: High-Level Radioactive Waste (HLRW)—HLRW is spent nuclear fuel from nuclear power plants and waste material from reprocessing spent nuclear fuel.

Radioactive Waste: Low-level Radioactive Waste (LLRW)—LLRW is any radioactive waste that is not HLRW, uranium tailings, or transuranic waste.

Radioactive Waste: Mixed Waste—A waste that contains both hazardous waste as defined by the Resource Conservation and Recovery ACT (RCRA) and source, special nuclear or byproduct material subject to the Atomic Energy Act of 1954, as amended.

Radioactive Waste: Transuranic Waste—Waste material that contains transuranic elements with half-lives greater than 20 years and concentrations greater than 100 nanoCuries per gram. A transuranic is an element with an atomic number greater than 92 (e.g., plutonium, americium, and curium).

Radioisotope Thermoelectric Generator (RTG)—A power system using the thermal energy produced by the radioactive decay of the unstable nuclei of certain isotopes as its energy source.

Restricted Area—For this instruction, a restricted area is an area having access limited to protect individuals against undue risk from exposure to radiation and RAM. Restricted area does not include areas used as residential quarters, but separate rooms in a residential building may be set apart as a restricted area.

SAFE HAVEN—Temporary storage provided Department of Energy classified shipment transporters at Department of Defense facilities in order to assure safety and security of nuclear material and/or non-nuclear classified material.

Source Material—Uranium or thorium or any combination thereof in any physical or chemical form; or ores that have, by weight, one-twentieth of 1 percent (0.05 percent) or more of uranium, thorium, or any combination thereof. Source material does not include SNM.

Specifically Licensed Material—RAM controlled by a specific NRC or Agreement State license; or a USAF, USN, or VA permit.

Special Nuclear Material (SNM)—Plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235; any other material that the NRC determines to be SNM and any material artificially enriched by the foregoing. SNM does not include source material.

Unrestricted Area—For this instruction, an unrestricted area is any area access to which is not controlled by the Permittee. Generally, it is an area that is accessible to a person who is not trained to work with RAM or accessible to a member of the public.

USAF Master Materials License (MML)—The single NRC license issued to the Department of the Air Force delegating to the USAF regulatory authority over byproduct, source, and limited quantities of SNM used by the USAF.

USAF Radioactive Material Permit—Written authorization from the USAF Radioisotope Committee for USAF organizations to receive, possess, use, distribute, store, transport, transfer and dispose of RAM. Permits parallel NRC licenses in applications and scope. The USAF's Master Materials License, and Broad Scope licensees, issue permits which are equivalent to NRC licenses for authorizing NRC regulated material. Unlike the NRC, a single permit may authorize byproduct, source, SNM, and NARM.

USAF Radioisotope Committee (RIC)—A committee established IAW requirements of the USAF Master Materials License to coordinate the administrative and regulatory aspects of permitting, acquiring, receiving, possessing, using, distributing, storing, transporting, transferring and disposing of all RAM in the USAF, except the material transferred from the Department of Energy to the Department of Defense in nuclear weapon systems, certain radioactive parts of weapons systems and nuclear reactor systems, and parts and fuel controlled under Section 91(a) or 91(b) of the AEA. It is primarily composed of stake-holder representatives from the Office of the Secretary of the Air Force, Headquarters Air Force, and field operating agencies.

USAF Radioisotope Committee Secretariat (RICS)—The office providing day-to-day management of USAF permitting activities under the purview of the USAF MML. The Secretariat generally comprises members from the Radiation Health function of AFMSA/SG3PB.

User—For this instruction, a user is (1) An organization authorized by a USAF RAM Permit to have and use RAM, or (2) A person specifically named on a USAF RAM Permit as authorized to handle or to supervise handling RAM listed on the permit, or (3) A person named in a permit condition by a radiation safety committee with local approval authority to handle or supervise the handling of RAM listed on the permit. Also see Authorized User.

Written Directive—an authorized user's record written order for the administration of byproduct material or radiation from byproduct material to a specific patient or human research subject, as specified in 10 CFR 35.40. An order must be in writing for a specific patient, dated and signed by an authorized user before the administration of I-131 greater than 30 microCuries, any therapeutic dosage of unsealed byproduct material or any therapeutic dose of radiation from byproduct material IAW 10 CFR 35.40.

Attachment 2

MANAGING GENERALLY LICENSED DEVICES

A2.1. Generally Licensed Devices (GLDs). The NRC or Agreement State issues a general license to acquire, receive, use, store or transfer certain devices that contain RAM which have been manufactured, tested and labeled by the manufacturer IAW the specifications contained in a specific license issued to the manufacturer by the NRC or an Agreement State. The following devices are labeled as being generally licensed:

A2.1.1. DELETE.

A2.1.2. 10 CFR 31.5, *Certain Detecting, Measuring and Controlling Devices and Devices Producing Light*: These are devices covered under 10 CFR 31.5, and include devices to detect and measure something, or produce light or an ionized atmosphere. Devices include the IONSCAN™, tritium exit signs, IBIS indicators, and some chemical agent detectors (e.g., APD-2000). **Exception:** GLDs under 10 CFR 31.5 that contain at least 10 mCi of Cesium-137, 0.10 mCi of Strontium-90, 1.0 mCi of Cobalt-60, or 1.0 mCi of Americium- 241, 0.10 mCi of Radium-226 or any other transuranic shall be specifically licensed, i.e., require a USAF RAM permit. (T-1)

A2.1.3. 10 CFR 31.10, *Sr-90 Ice Detection Device*s. These include devices that contain no more than 50 µCi of Strontium-90.

A2.1.4. 10 CFR 31.11, *In-Vitro Clinical Testing*. These include prepackaged kits containing not more than 10 µCi Iodine-125; 10 µCi Iodine–131; 10 µCi Carbon-14; 50 µCi Hydrogen-3; 20 µCi Iron-59; and 10 µCi Selenium-75. USAF organizations that want to use RAM specified under 10 CFR 31.11 shall:

A2.1.4.1. Possess an existing USAF RAM permit that authorizes medical use of RAM (10 CFR 31.11). If a permit does not exist, apply IAW **paragraph 3.4** and RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance). (T-0)

A2.1.4.2. Conduct and maintain a record of quarterly radiation swipe surveys when using radionuclides other than Hydrogen-3 and Carbon-14. (T-1)

A2.2. Acquisition of GLDs. GLDs should be purchased using Defense Federal Acquisition Regulations, assigned an NSN and registered in the Federal Logistics Information System and Hazardous Material Information Resource System. GLDs shall be registered in the USAF logistics system and identified as radioactive and inventoried in RAMMIS. (T-1)

A2.3. Requirements for Possession of GLDs under 10 CFR 31.5. All USAF units will comply with Sealed Source and Device Registry (SSDR) requirements for each specific GLD device type. (T-0) In addition:

A2.3.1. All USAF units will ensure that the IRSO enters all GLDs (e.g., radioluminescent exit signs, some chemical agent monitors) into the RAMMIS database and keeps the RAMMIS database current. (T-1)

A2.3.2. Units with GLDs that do not possess a USAF RAM permit will appoint a responsible individual to ensure that the requirements of the SSDR are met and that the

RAMMIS inventory is current. (T-1) For units with issued permits, the PRSO will be the responsible individual. (T-1) The responsible individual shall:

A2.3.2.1. Provide the IRSO an updated inventory at least every six months so that the IRSO can input the data into RAMMIS. (T-2)

A2.3.2.2. Preserve all labels affixed to the device and ensure all instructions are followed (10 CFR Part 31). (T-0)

A2.3.2.3. If required by the SSDR, the device shall be tested for leakage, and proper operation of any on-off mechanism or indicator, if any, tested at no longer than six month intervals, or as specified by the SSDR (10 CFR Part 31). (T-0) All leak tests will be coordinated with the IRSO so that appropriate protocols and materials are used. (T-1) The following do not require leak tests:

A2.3.2.3.1. Devices containing only Krypton-85.

A2.3.2.3.2. Devices containing only Hydrogen-3.

A2.3.2.3.3. Devices containing not more than 100 μCi of other beta and/or gamma emitter or 10 μCi of an alpha emitter, and devices held in their initial shipping container prior to installation.

A2.3.2.3.4. Leak tests are waived for devices kept in storage for no longer than two years, at which time a leak test is required before return to storage. However, devices retrieved from storage shall be tested for leakage before being put in use if over six months have elapsed since the last test (10 CFR Part 31). (T-0)

A2.3.3. Units shall suspend operation of the device if there is damage/failure to the device's shielding, detection of removable contamination exceeding 0.005 microCuries, failure of its on/off mechanism or for any defects that could affect radiation safety. (T-0) Defects shall be reported to the RIC IAW 10 CFR Part 21, this AFI, and RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance). (T-0)

A2.3.4. Units shall not transfer GLDs to entities outside of the installation, unless the entity possesses a specific license for the item(s); but, movement of GLDs from one unit, on the same installation to another, does not require the gaining unit to possess a USAF RAM permit (10 CFR Part 31). (T-0) All transfers of GLDs shall be coordinated through the IRSO. (T-1)

A2.3.4.1. Inventories must be updated in RAMMIS to reflect the transfer or movement. (T-1) Report the transfer of generally licensed material to the RICS, with the information required by the NRC in 10 CFR 31.5, *Certain Detecting, Measuring, Gauging or Controlling Devices and Certain Devices for Producing Light or an Ionized Atmosphere*; and, provide a copy of the SSDR to the gaining unit. (T-0) The gaining unit shall provide verification of receipt, to include serial numbers, to the losing unit. (T-1)

A2.3.4.2. A leak test and shutter test, if required by the SSDR, must be performed prior to transferring the device, and shipping procedures must be IAW 49 CFR Chapter I Subchapter C, DTR 4500.9-R-Part II, AFJI 23-504, AFMAN 24-204(I) and this AFI. (T-0)

A2.3.5. The appointed individual shall report any incidents, thefts or loss of GLDs to the IRSO. (T-1) The IRSO will in turn comply with the reporting requirements of this AFI and RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance). (T-1)

A2.3.6. The IRSO shall update in RAMMIS, all relevant GLD use information, including changes to the storage location, the responsible unit, and current address. (T-2)

A2.4. Disposition of GLDs. GLDs shall be properly disposed of IAW Attachments 2 and 5, and AFJI 23-504. (T-1) Transfer of GLDs in the AF will be coordinated with IRSOs and the RICS. (T-1) Disposition of GLDs in the AF will be coordinated with AFRRAD. (T-1) ***UNDER NO CIRCUMSTANCES WILL GENERALLY LICENSED DEVICES BE TRANSFERRED TO the Defense Reutilization Management Office/system, or A Disposition Services Field Office.*** (T-1)

Attachment 3

MINIMUM TRAINING AND EXPERIENCE REQUIRED FOR PRSO AND PERMIT INSTRUCTORS OF MANUFACTURER'S DEVICE TRAINING

A3.1. Required Training for PRSOs. The training required for PRSOs is listed below for specific permit types**.** PRSOs must have formal training commensurate with the type and quantity of RAM possessed. (T-0) All RSO training curricula must be approved by the RICS. (T-0) Specific requirements for a RICS approved 40 hour PRSO course are listed in **paragraph A3.3**. A summary of requirements are listed in **paragraph A3.1**.

A3.1.1. Portable Gauges: PRSOs shall have training commensurate with guidance in NUREG 1556, Volume 1, *Program-Specific Guidance about Portable Gauge Licenses*, to include regulatory requirements of the NRC for RAM accounting, reporting, transferring, shipping, disposing of material, servicing and leak testing of the specific gauge, if required. (T-0)

A3.1.1.1. Gauges Covered by Template Permits (e.g., CAMs, CADs, LANTIRN™ / Sniper® pods, Niton® XRF meters): PRSOs must have successfully completed a RICS approved PRSO training course. (T-1)

A3.1.1.2. Moisture Density Gauges (e.g., Troxler® gauges): PRSOs must have completed (1) either 40 hours of RICS approved RSO training that encompasses the requirements in **paragraph A3.3** or the manufacturer's RSO training, and (2) the manufacturer's device training, emphasizing source security, accountability and ALARA for workers and the public. (T-0) Note: the online training course entitled "Nuclear Gauge Training plus HAZMAT" offered by Troxler® Electronic Laboratories, Inc. satisfies the manufacturer's device training requirement for PRSOs and authorized users (AUs). (The AF offers an online 40-hour RSO training course.)

A3.1.1.3. Vehicle and Cargo Inspection Systems (VACIS): PRSOs must have completed 40 hours of RICS approved RSO training that encompasses the requirements in **paragraph A3.3** and the manufacturer's device training. (T-0)

A3.1.2. Fixed Gauges: PRSOs must have successfully completed 40 hours of RICS approved PRSO training, commensurate with guidance in NUREG 1556, Volume 4, *Program-Specific Guidance About Fixed Gauge Licenses,* including regulatory requirements of the NRC for RAM accounting, reporting, transferring, shipping and disposing of material and servicing and leak testing and manufacturer's training (if required by the manufacturer's SSDR or USAF RAM permit). (T-0)

A3.1.3. Personnel Security Screening Systems: PRSOs must have successfully completed a RICS approved PRSO training course and the manufacturer's device training. (T-1)

A3.1.4. Academic, Research and Development, and Other Permits of Limited Scope: PRSOs must have successfully completed 40 hours of RICS approved PRSO training, and have additional training and experience relevant to the permitted material and commensurate with guidance in NUREG 1556, Volume 7, *Program-Specific Guidance about Academic, Research and Development, and Other Licenses of Limited Scope Including Electron Capture Devices and X-Ray Fluorescence Analyzers*. (T-0)

A3.1.5. Broad Scope Permits: PRSOs should have training and experience as specified in NUREG 1556, Volume 7, and approved by the RICS. (T-0) Training and experience must be relative to the RAM and the specific applications approved in the permit. (T-0)

A3.1.6. Medical Permits: PRSOs must have training as specified in 10 CFR Part 35 and NUREG 1556, Volume 9, *Program-Specific Guidance About Medical Use Licenses*. (T-0)

A3.1.7. Decommissioning and Decontamination Permits: PRSOs will take the MARSSIM course and/or the MARSAME course, if applicable. (T-2)

A3.1.8. Other Permits: PRSO qualifications for all other permits shall be approved by the RICS on a case-by-case basis. (T-1) General criteria used by the RICS includes the education, training and experience of the individual, regulatory requirements specified in 10 CFR Chapter I (if any) and guidance provided in the applicable NUREG 1556 volume for the type of permitted material. **Note**: Training for IRSOs and Unit Radiation Safety Officers (URSOs) is listed in AFI 48-148.

A3.2. Qualifications for Permit Instructors of Manufacturer's Device Training ("Train the Trainer" concept). Authorized users may provide the manufacturer's device training to others if they have the specific qualifications listed below. (T-1) All manufacturer's device instructor training curricula and permit device training instructors shall be approved by the RICS. (T-1) A summary of requirements is listed in **Table 3.2**.

A3.2.1. Moisture Density Gauges (e.g., Troxler® gauges): Instructors must have successfully completed: (T-1)

A3.2.1.1. One year as a full time approved authorized user and have a good inspection performance history; and

A3.2.1.2. Manufacturer's RSO training; and

A3.2.1.3. Manufacturer's instructor's training.

A3.2.2. Vehicle and Cargo Inspection Systems (VACIS): Instructors must have successfully completed:

A3.2.2.1. One year as a full time approved authorized user and have a good inspection performance history; and (T-1)

A3.2.2.2. Forty (40) hours of RICS approved PRSO training that encompasses the requirements in **paragraph A3.3 (**10 CFR 33.33(a)(3)); and (T-0)

A3.2.2.3. Manufacturer's instructor's training. (T-1)

A3.2.3. Personnel Security Screening Systems: Instructors must have successfully completed: (T-1)

A3.2.3.1. One year as a full time approved authorized user and have a good inspection performance history; and

A3.2.3.2. A RICS approved PRSO training course; and

A3.2.3.3. Manufacturer's instructor's training.

A3.2.4. Other Permitted Devices: Instructor qualifications for all other permitted devices shall be approved by the RICS on a case-by-case basis. (T-1)

A3.3. Radiation Safety Officer Course Curricula: An RSO course designed for training personnel to manage basic radiation safety programs involving non-template permits, shall, at a minimum, include:

A3.3.1. Radiation safety topics: (T-0)

A3.3.1.1. Radiation vs. contamination,

A3.3.1.2. Internal vs. external exposure and dose equivalents,

A3.3.1.3. Biological effects of radiation,

A3.3.1.4. Types and hazards associated with RAM possessed,

A3.3.1.5. ALARA concept,

A3.3.1.6. Time, distance, and shielding to minimize exposure,

A3.3.1.7. Sealed source location within the gauge,

A3.3.1.8. "Lessons learned" from prior events involving permitted material, and

A3.3.1.9. Inspection by regulatory agencies.

A3.3.2. Regulatory requirements for the following topics: (T-0)

A3.3.2.1. Applicable regulations,

A3.3.2.2. License/Permit conditions, amendments, renewals,

A3.3.2.3. Locations of use and storage of RAM,

A3.3.2.4. Material control and accountability,

A3.3.2.5. Annual audit of radiation safety program,

A3.3.2.6. Transfer and disposal,

A3.3.2.7. Record keeping,

A3.3.2.8. Managing incidents/mishaps,

A3.3.2.9. Recognition and assurance of radiation warning signs; visibility and legibility,

A3.3.2.10. Requirement for complete and accurate information,

A3.3.2.11. Employee protection, and

A3.3.2.12. Deliberate misconduct.

A3.3.3. The RICS may temporarily waive certain requirements for training (e.g., time of experience) based on mission need. However, the PRSO will work under a preceptor or limitations imposed by the RICS. (T-1)

Table A3.1. PRSO Training Requirements. (T-1)

PRSO Training Requirements							
Permit Type[6]	**Manufacturer's Training**	**RIC Approved Training Course[1]**	**Manufacturer's RSO Training[2]**	**RIC Approved 40-hr Training Course**	**Experience with permitted RAM; requirements in 10 CFR33 and NUREG 1556 V 11**	**Requirements in 10 CFR35 and**	**Increased Controls Training as defined by the RICS**
Template Permits		X					
Moisture Density Gauges (Non- Template)	X		X				
Fixed Gauges	X			X			
Cargo and Vehicle Inspection System	X			X			
Personal Security Screening System	X	X					
Limited Scope				X			
Broad Scope (A or B)					X		
Medical[3,4]						X	
Increased Controls[5]							X

[1]The training course must be RICS-approved and must have an end of course test. Training materials will be provided by the IRSO.

[2]Must have at least an 8-hr RICS-approved PRSO course.

[3]Medical PRSO requires approved radiation safety training be given no later than 7 years prior to being appointed as a medical PRSO. Medical permit holders need 25 hours of continuing education training in radiation safety and RAM control either through courses provided by professional organizations for continuing education or as approved by the RICS.

[4]Training programs for nuclear medicine technicians assigned as a medical PRSO must be reviewed and approved by their regional medical physics office.

[5] Increased Control Training is in addition to other training required for the specific permit type.

[6]Contact the RICS for the minimum training requirements for PRSOs responsible for multiple permit types.

Table A3.2. Permit Instructor for Device Training. (T-1)

Permit Instructor for Device Training					
Permit Type	**One Year as an Authorized User**	**Manufacturer's RSO Course**	**RIC Approved Training Course[1]**	**RIC Approved 40-hr Training Course**	**Manufacturer's Instructor Training Course**
Moisture Density Gauges (Non-Template)	X	X			X
Cargo and Vehicle Inspection System	X			X	X
Personal Security Screening System	X		X		X
[1]The PRSO training course must be RICS approved.					

Attachment 4

RADIOACTIVE WASTE SITES RESPONSIBILITIES

A4.1. The RICS will:

A4.1.1. Conduct historical search of documents, maintained at AFMSA / SG3PB, pertaining to potential Radioactive Waste Sites (RWS) upon request.

A4.1.2. Issue *possession only* permits for those registered sites that are either confirmed to have material contamination or will require intrusive investigation to identify scope of contamination, with the exception of sites containing only 91(a) or 91(b) material.

A4.1.3. Act as an advisor for the Remedial Project Manager (RPM) for engaging with and addressing regulatory authority issues.

A4.1.4. Review and approve decommissioning plans, final status surveys, and site-specific safety and health plans.

A4.1.5. Conduct site visits before and during remediation and/or decommissioning to ensure compliance with RICS approved procedures.

A4.1.6. Advise AFIA on inspection protocol for each USAF permitted RWS.

A4.1.7. Terminate *possession only* permits for those sites that satisfy unrestricted release criteria, IAW 10 CFR 20.1402.

A4.2. AFSEC/SEW will:

A4.2.1. Conduct historical search of documents maintained by the AFSEC pertaining to potential RWS containing 91(a) or 91 (b) materials upon request.

A4.2.2. Issue *possession only* permits for those registered sites that are either confirmed to have 91(a) or 91(b) material contamination or will require intrusive investigation to identify scope of contamination.

A4.2.3. Provide weapons related information, as required, to assist the Remedial Project Manager (RPM), USAFSAM/OE, AFRRAD, and AFMSA/SG3PB in determining the radionuclides present at a 91(b) site and act as an advisor for the RPM for engaging with and addressing regulatory authority issues.

A4.2.4. Review and approve decommissioning plans, final status surveys, and site-specific safety and health plans.

A4.2.5. Conduct site visits before and during remediation and/or decommissioning to ensure compliance with AFSEC approved procedures.

A4.2.6. Terminate *possession only* permits for those sites that satisfy unrestricted release criteria.

A4.3. AF/A4C will:

A4.3.1. Maintain and manage the USAF Radioactive Waste Site Registry that is an identification and tracking database of all suspected and confirmed USAF RWS.

A4.3.1.1. Present RWS Area of Concern (AOC) documentation to the RICS for review and validation.

A4.3.1.2. Register RWS AOC data, upon RICS approval, into the AF Radioactive Waste Registry. Provide an updated list of USAF RWS registry to the RICS before 31 December of each year.

A4.4. Air Force Civil Engineering Center (AFCEC) will: confirm with USAF/A4C or AFSEC/SEW the registration of the site in the AF Radioactive Waste Site Registry projects involving the remediation of known or suspected RWSs, and confirm with the RICS the status of permitting requirements. In addition, USAFSAM/OE must be consulted regarding the selection of a qualified, licensed contractor to perform the required work and waste disposal procedures and requirements.

A4.5. USAFSAM/OE will:

A4.5.1. Consult with the RPM in evaluating information pertaining to a suspected RWS AOC. (T-1)

A4.5.1.1. Will search historical records and coordinate with the RICS and AFSEC/SEW for data collection and information validation. (T-1)

A4.5.1.2. Will assess potential source terms and conduct a preliminary risk assessment to assist with a relative risk determination. (T-1)

A4.5.2. Provide technical consultation and expert remediation guidance to the RPM. (T-1)

A4.5.3. Provide guidance to the RPM and the Service Center (e.g., AFCEC) in selecting a qualified, licensed contractor for conducting required remediation activities. (T-1)

A4.5.4. Assist RPM, Installation SJA, and the RICS in determining cleanup levels and regulatory requirements. (T-1)

A4.5.5. Conduct scoping surveys of suspected RWS AOCs as requested by the IRSO. (T-1)

A4.5.6. Consult as requested on all installation level actions, analysis, reports and recommendations with the IRSO. (T-1)

A4.5.7. Act as technical advisor to AFMSA/SG3PB, the RIC and AFSEC/SEW. (T-1)

A4.5.7.1. Provide technical review for all remediation plans, decommissioning plans, and final status surveys, and provide recommendation of approval or disapproval to the RICS. (T-1)

A4.5.7.2. Provide a quality assurance function to the Remedial Action and Final Status Survey process (e.g., review of plan requirements, data quality review, adequacy of work, and review of findings). (T-1)

A4.5.7.2.1. Provide quality assurance sample analysis, (e.g., 10% splits, duplicates and spikes) and confirmatory survey analysis for any contracted remedial action at the request of the RICS. (T-1)

A4.5.7.2.2. Perform a field confirmatory survey (e.g. 10% scan, in-situ and removable swipe samples) for any contracted remedial action at the request of the RICS. (T-1)

A4.5.8. Assist AF/A4C in maintaining site registry. (T-1)

A4.6. The Base Civil Engineer will:

A4.6.1. Contact the IRSO upon the discovery or knowledge of a location that may contain radioactive waste. (T-1)

A4.6.2. Ensure all areas of concern, to include permitted sites, are identified in Tab C-1 of the Installation Master Plan and that the site is not disturbed until a proper assessment is performed. (T-1)

A4.6.3. Ensure that confirmed or suspected RWS that present a health or environmental risk have:

A4.6.3.1. Site access limited with a strong physical barrier such as a chain link fence or other measures, to prevent exposure of individuals to RAM. An inspection of physical barriers shall be conducted, at a minimum, annually. (T-1)

A4.6.3.2. Post site boundaries for each accessible side with RAM warning signs stating that the site contains buried RAM. Ensure the signs are properly maintained (condition, visibility and legibility). Inspection of signs shall be conducted, at a minimum, annually. Design and display shall be IAW 10 CFR 20.1901-1903. (T-0)

A4.6.3.3. Protect the soil surface against erosion using grasses or other ground covers (such as stone or gravel) to maintain site stability. (T-2) Keep the site clear of deep-rooted shrubs and trees. (T-2)

A4.6.4. Ensure no RWS is removed from the Installation Master Plan, transferred, released, or disregarded as a RWS until approved by the RICS. (T-1) AFSEC/SEW and/or USAFSAM/OE are available for assistance.

A4.7. The Remedial Project Manager (RPM) will:

A4.7.1. Serve as the responsible agent for the overall management and execution of a RWS remediation project. (T-2) The RPM will usually be a member of the installation environmental management office. (T-2)

A4.7.2. Ensure a suspected area of concern (AOC) is registered through their chain of command with the RWS registry maintained by AF/A4C. (T-1) Note: radioactive waste may be discovered on an existing Installation Restoration Program (IRP) site.

A4.7.3. Contact the IRSO to request assistance from USAFSAM/OE in conducting a scoping survey of a suspected RWS AOC. (T-2)

A4.7.4. Develop and submit application for a possession-only permit to the IRSO once a registered site is identified as positive for radioactive waste or before intrusive investigation commences. (T-1) **Note:** Classified sites or material will require special procedures.

A4.7.5. In conjunction with the IRSO:

A4.7.5.1. Consult with USAFSAM/OE and/or AFRRAD, as appropriate, for assistance in selecting a qualified contractor. (T-2)

A4.7.5.2. Consult with USAFSAM/OE, the RICS, and regulatory agencies in selecting appropriate cleanup levels for remediation. (T-1)

A4.7.5.3. Request technical assistance from USAFSAM/OE and the RICS in developing and executing decommissioning plans, site safety and health plans, and final status surveys. (T-2)

A4.7.6. Apply MARSSIM and MARSAME survey methodologies in developing all investigation and remediation work plans. (T-1)

A4.7.7. Submit for review and approval, decommissioning plans, site safety and health plans, and final status surveys to the IRSO who in turn submits them to the RICS. (T-1)

A4.7.8. Contact the IRSO to ensure that Installation Restoration Program eligible sites are entered in the AFRIMS database. (T-1)

A4.8. The Installation Radiation Safety Officer (IRSO) will:

A4.8.1. Advise the Civil Engineer, RPM, commanders, and other base personnel on identification and remediation of potential public and occupational health risks associated with suspected or confirmed contaminated sites. (T-1)

A4.8.2. Serve as the interface between the installation and the RICS, AFSEC/SEW and USAFSAM/OE for all radiation related issues. (T-2) When requested by the RPM, contacts USAFSAM/OE and the RICS for technical assistance in developing decommissioning plans, remediation work site safety and health plans, and final status surveys. (T-2)

A4.8.3. Submit application for a possession-only permit to the RICS once a registered site is identified as positive for radioactive waste or before intrusive investigation commences. (T-1)

A4.8.4. Consult with USAFSAM/OE and AFRRAD for assistance in selecting a qualified contractor. (T-2)

A4.8.5. Review decommissioning plans, remediation work site safety and health plans, and final status surveys for the installation and submit them to the RICS for approval. (T-1) Assures appropriate health physics oversight of the effort. (T-1)

A4.8.6. Conduct annual surveys of radioactive waste sites to include:

A4.8.6.1. Visual inspection of the integrity of pipe caps or other closure devices that extend above ground. (T-2)

A4.8.6.2. Conduct radiation surveys if there is an indication of intrusion or damage to the site. (T-2)

A4.8.6.3. Ensure that fencing, security devices, and signage are in good order. (T-2)

A4.8.7. Report to the RIC a release or exposure to RAM IAW 10 CFR Chapter I, this AFI, and RIC written directives with reference to RIC website content (secondary guidance) and/or USAFSAM/OE technical guidance (secondary guidance). (T-0)

A4.9. The Air Force Inspection Agency will:

A4.9.1. Inspect, as appropriate, sites permitted for either *possession only* or for decommissioning. If no permit has been issued, then no inspection by AFIA/SG is required.

A4.9.2. Only inspect sites containing only 91(a) or 91(b) material as regulated by the AFSEC upon request.

A4.10. The Installation SJA will:

A4.10.1. Assist the RPM, USAFSAM/OE, AFRRAD, and the RICS in determining the legislative jurisdiction of contaminated sites where contractors will be performing work under their own (e.g., NRC or Agreement State) license. (T-2)

A4.10.2. Assist the RPM, USAFSAM/OE, and the RICS in identifying applicable statutory and regulatory requirements and determining appropriate cleanup levels. (T-2)

Attachment 5

MANAGING AND DISPOSING OF RADIOACTIVE WASTE

A5.1. Requirements for Waste Generating Activities.

A5.1.1. The PRSO will control access to laboratories or rooms where radioactive waste is generated or stored (storage area must provide sufficient protection to prevent degradation of packaging or the waste) when they are vacant or unattended. (T-1)

A5.1.2. The PRSO will maintain a log for information about RAM placed into radioactive waste containers and record radiation levels. (T-0) The log shall include (10 CFR Part 51, MML and NUREG 1556): (T-0)

A5.1.2.1. Name of the installation;

A5.1.2.2. The building and number of the room containing radioactive waste containers;

A5.1.2.3. The types of containers and the identification number assigned to each container;

A5.1.2.4. The date items were placed in the container;

A5.1.2.5. A description of items placed in each container. Stock listed items shall contain a record each item's name and stock number. Sealed sources shall contain a record of the manufacturer; date manufactured, model, and serial number, if available. Identify other articles by their common names, for example, contaminated gloves, rags, and paper chucks;

A5.1.2.6. The radionuclide(s) contained in the item;

A5.1.2.7. The known or estimated radioactivity in curie or becquerel units. Do not abbreviate unit or prefixes;

A5.1.2.8. The physical form of each radionuclide, for example, gas, solid, or liquid. **Note:** Do not treat radioactive waste by absorption of liquids, solidification of liquids or any other procedures that is designated for burial unless approval is obtained from the AFRRAD (reference **paragraph A5.4**);

A5.1.2.9. The chemical form of each radionuclide, for example, oxide, chloride, and the chemical name of the labeled compound;

A5.1.2.10. The name and initials of the individual making the entry;

A5.1.2.11. Meter readings in millirem or milliSievert per hour (mrem/hr or mSv/hr) measured outside the containers;

A5.1.2.12. The name and initials of the individual conducting the survey; and

A5.1.2.13. Evidence of PRSO and IRSO coordination, as applicable.

A5.1.3. The PRSO will survey radioactive waste storage areas periodically to ensure compliance with 10 CFR Part 20 and document the results. (T-0)

A5.1.4. The PRSO will maintain records of all disposals of radioactive waste for the duration of the permit (10 CFR 30.51). (T-0)

A5.1.5. Before sealing a waste container, the PRSO must: (T-1)

A5.1.5.1. Verify for each waste container, the legibility and completeness of each waste entry, and visually inspect the containerized waste. To prevent contamination of personnel or the area, do not physically remove or handle the waste from the container.

A5.1.5.2. Survey the container to ensure that detected radiation levels correspond to the entries recorded in the waste log. **Note:** A container storing a low-energy beta emitters or small quantities of a low-energy gamma emitter (e.g., Iodine-125) would not have high levels of X or gamma radiation. Gamma surveys shall be conducted on these containers to ensure that high energy gamma emitting sources were not improperly placed in the container or that Bremsstrahlung radiation is not being produced at significant levels to cause a potential hazard.

A5.1.5.3. The PRSO must secure the waste and records and investigate to resolve discrepancies if observations or measurements give unusual results.

A5.1.6. Close and seal the plastic bag or container for transfer and disposal after the PRSO's audit. (T-2)

A5.2. Requirements and Rules for Storage of Radioactive Waste Containers.

A5.2.1. Long-term storage is not encouraged and should be avoided. In general, store radioactive waste for no longer than one (1) year. (T-1)

A5.2.2. PRSOs must maintain a listing of all sealed radioactive waste storage containers and account for and inspect semiannually the integrity of each container (10 CFR 35.92(b)). (T-0) A record of the inspection shall be maintained for three (3) years. (T-0)

A5.2.3. A copy of the waste inventory sheet must be attached to each waste container held in long-term storage. (T-1)

A5.2.4. Do not open waste containers to conduct periodic inspections. (T-1)

A5.2.5. Ensure storage areas are properly ventilated prior to survey. (T-1)

A5.2.6. The PRSO shall conduct a final inspection of radioactive waste containers for integrity of the container and container seal; accuracy and completeness of log entries; proper markings and labels; and perform required surveys prior to removing the containers for transfer or disposal. (T-1)

A5.2.7. The PRSO will file inventory sheets and waste logs in the PRSO’s permanent records of the permit authorizing long-term storage of the waste after disposal or transfer of each waste container (10 CFR 35.2092). (T-0)

A5.2.8. Do not store liquid waste more than one (1) year. (T-1) Solidify the waste with the help of AFRRAD. (T-1)

A5.3. Disposal by Decay-in-Storage. Permittees authorized to dispose by decay-in-storage will comply with the record keeping requirements prescribed in 10 CFR 35.92(b). (T-0)

A5.4. Disposal by Burial or Recycling.

A5.4.1. Radioactive sources no longer needed by the Permittee, and not authorized for decay-in-storage, may be disposed by burial or recycling. All requests for disposal by burial

or recycling will be made, in writing, to AFRRAD. (T-1) Written requests shall include the following information: (T-1)

A5.4.1.1. NSN or part number and manufacturer's name or code of the radioactive source, if applicable;

A5.4.1.2. Nomenclature (e.g., lensatic/military compass, tube assembly, test sample);

A5.4.1.3. Quantity of each item or amount of waste in terms of cubic feet;

A5.4.1.4. Radionuclide(s);

A5.4.1.5. Physical Form (e.g., solid, liquid, gas) to include any known hazardous waste constituents;

A5.4.1.6. Chemical form;

A5.4.1.7. Estimated radioactivity per item, and total radioactivity in milliCuries, and in becquerels, for each container; and

A5.4.1.8. Radiation exposure rate in millirem per hour (milliSievert per hour) at 4 inches from surface of unpackaged item (for items only).

A5.4.2. Installations located overseas are authorized to dispose of waste in the host country where they are geographically located to the extent that such disposal is in compliance with applicable host nation regulations and agreements and has been approved by the responsible (cognizant) host nation authority, approved by the RICS, and determined to be consistent with applicable Geographic Combatant Command policy, and environmental annexes to operational orders (OPORDS), operational plans (OPLANS) or other operational directive.

A5.5. Exempt Quantity Item Disposal.

A5.5.1. Electron tubes and spark gaps containing RAM can be disposed of as normal trash providing the following conditions are satisfied:

A5.5.1.1. Store electron tubes or spark gaps in a way that will prevent breakage. Each tube or spark gap must contain less than the quantities listed in 10 CFR 30.15 (do not accumulate exempt quantities) or does not contain more than the exempt quantity of NARM materials specified in **Attachment 2;** and (T-0)

A5.5.1.2. The levels of radiation from each electron tube or spark gap does not exceed one (1) milliRoentgen per hour on contact when measured with a proper radiation detection instrument; (T-1) and

A5.5.1.3. Disposal is authorized by applicable host nation, state or country statutes and regulations. In overseas locations make the further determination that burial is determined to be consistent with applicable Geographic Combatant Command policy, and environmental annexes to operational orders (OPORDS), operational plans (OPLANS) or other operational directive. (T-0)

Attachment 6

INSPECTION POLICY

A6.1. Introduction. The inspection program for permitted and generally licensed RAM serves to assess compliance with permit conditions, this instruction and Federal regulations (e.g., NRC and DOT). The frequency and duration of the inspection shall be based on the inspection priority assigned by the RICS, complexity of the permit, overall risks of the permitted activity, and opportunity to witness infrequent or unique procedures.

A6.2. Inspection Protocol.

A6.2.1. Inspections of permits shall be conducted by the Air Force Inspection Agency, Medical Operations Directorate (AFIA/SG), the U.S. Nuclear Regulatory Commission (NRC), AFMSA/SG3PB, or collaboratively. Inspections are conducted IAW NRC Inspection Manual **Chapter 280**, *Materials Inspection Program*, and as necessary, may apply a "prescriptive" evaluation to ensure the implementing conditions of this instruction are accomplished. (ref. MML and NRC Inspection Manual **Chapter 280**)

A6.2.2. Inspections by either organization shall avoid interference with the Permittee's operational obligations; however, a Permittee shall not delay inspections based on inconvenience. **Note:** 10 CFR 30.52 states, "Each licensee shall afford to the NRC at all reasonable times the opportunity to inspect byproduct material and the premises and facilities wherein byproduct material is used or stored. (T-0) Each licensee shall make available to the NRC for inspection, upon reasonable notice, records kept by him." (T-0) This access shall also be afforded to AFIA/SG or AFMSA/SG3PB. (T-1) Permittees failing to submit to or afford an inspection may be issued a violation for non-compliance.

A6.2.3. The AFIA/SG or AFMSA/SG3PB inspector shall be in uniform; credentialed with a DOD common access card (CAC); and either possess a badge, orders, authorization letter or a list of telephone numbers from which the Permittee may call for verification. The inspector shall have a clearance verified in the Joint Clearance and Access Verification System (JCAVS). The NRC shall have identification and, as necessary, be able to demonstrate appropriate clearance. The Permittee has a right and duty to challenge unknown individuals presenting themselves as inspectors.

A6.2.4. Inspections are generally conducted on-site and unannounced IAW AFI 90-201. Inspections may be conducted at times outside of normal duty hours, particularly when the use or receipt of permitted material is conducted. A valid inspection involves AFIA/SG or AFMSA/SG3PB contact with the Permittee, PRSO or responsible (cognizant) individual using material covered by the permit. Inspections that cannot be conducted due to operational obligations or the unavailability of applicable personnel may be rescheduled if coordinated with AFIA/SG or AFMSA/SG3PB.

A6.2.5. A unit that has deployed the PRSO and does not have an available alternate PRSO is still subject to inspection. The permit shall be revised to *possession only* during the PRSO deployment and an administrative officer should be named to the permit. (T-1) Failure to comply with the conditions of the permit, this instruction or applicable Federal regulations may result in a violation for non-compliance, particularly if permitted material is not properly secured and controlled.

A6.2.6. Neither AFIA/SG nor AFMSA/SG3PB is required to pre-inspect any unit prior to an NRC inspection. Units are expected to be in compliance at all times.

A6.2.7. Telephonic inspections by AFIA have been discontinued and will no longer be used.

A6.2.8. Stop Action. During the course of an inspection, AFIA/SG or AFMSA/SG3PB may determine a procedure or practice to be imminently dangerous to life and health (IDLH). In those cases, the inspector shall require the Permittee to temporarily cease operations until corrective action is taken. As necessary, the RICS shall be contacted. The inspector shall not ask the Permittee to perform a task that is hazardous, in contravention to the permit, this instruction, Federal regulations or has potential to disrupt operational activities.

A6.2.9. The AFIA/SG or AFMSA/SG3PB inspector shall offer to conduct an out-brief with the PRSO, Permittee or cognizant individual(s). The out-brief shall include discussion of the inspection scope, contacts, results, and preliminary rating. In cases where the inspection reveals significant findings or Severity Level I-III violation(s), an out-brief with the Permittee and his/her commander shall be mandatory. AFIA/SG will contact AFMSA/SG3PB prior to the out-brief of these type of findings. Following an inspection, AFIA/SG may request clarifying or additional information from the Permittee.

A6.2.10. AFIA/SG shall generate a final report and assign a rating in 60 duty days. The Permittee must initiate corrective actions in advance of any report. At a minimum, the final report shall be submitted to the Permittee, RICS, and the Permittee's MAJCOM/IG and SG.

A6.3. Inspection Types.

A6.3.1. New permit inspections shall be conducted approximately six months after permitted materials are received. Permittees are required to immediately notify AFIA/SG when permitted materials have been received. (MML & NRC Inspection Manual **Chapter 280**)

A6.3.2. Routine permit inspection shall be conducted at intervals established by the permit or as established in NUREG 1556, Volume 20. Inspection frequency may be changed based on Permittee performance. (MML & NRC Inspection Manual **Chapter 280**)

A6.3.3. Follow-up permit inspections shall be conducted when Permittees receive NRC Severity Level I-III violations. Such may also be requested by the RIC. They will occur no later than six months following closure of corrective actions.

A6.3.4. Collaborative permit inspections: AFIA/SG may choose to accompany the NRC during an inspection. NRC inspections may occur at any time and are not bound by the intervals established by the permit or recentness of the last AFIA/SG inspection. Conversely, the NRC may choose to accompany AFIA/SG during an inspection. Typically, the NRC does not issue a report under these conditions.

A6.3.5. Incident inspections may be conducted based on concern expressed by the RICS, the NRC or following a significant event (e.g., personnel health and safety violations, loss of control of RAM, radiation exposure exceeding regulatory guidelines, natural disaster or equipment failures). In these instances, AFIA/SG or AFMSA/SG3PB may conduct an off-cycle visit or inspection either unannounced or scheduled. This type of inspection is generally not rated but a report may be generated.

A6.3.6. Consultancy inspections, upon request of the Permittee, AFIA/SG or AFMSA/SG3PB, may conduct a scheduled visit to identify areas where assistance and

improvements can be made. Furthermore, AFIA/SG or AFMSA/SG3PB may conduct a scheduled visit to advise the Permittee on how to implement new AFIs or Federal regulations. Consultancy visits, requested by the Permittee, are generally funded by the requesting organization. This type of visit shall not be rated but a report should be generated.

A6.3.7. Permit termination audits: a termination audit may be scheduled and conducted during or following the termination of a broad scope permit, remediation activity or permitted activity involving significant amounts of unsealed RAM, to assure the criteria of 10 CFR Part 20, Subpart E are met. This type of audit shall not be rated but a report may be generated. Note: auditable records include the decommissioning plan if applicable, the final status survey report (FSSR) if applicable, NRC or Agreement State memoranda documenting acceptance of the FSSR and approval for permit termination as applicable, the NRC Form 314, Certificate of Disposition of Materials (with all applicable attachments), the signed termination permit amendment from the RICS, and RICS memoranda documenting any long-term alternate or additional instructions.

A6.3.8. Special emphasis inspections: certain topics to be researched, as requested by the RICS are conducted by AFIA/SG. These Special Emphasis Item (SEI) studies are conducted according to AFI 90-201. SEIs are normally terminated within 6-12 months, and the results are briefed at the annual IG-SG Annual Review.

A6.3.9. Other: wherever there is geographic clustering of permits, it may be advantageous for AFIA/SG to accelerate the date of the next inspection. This predominantly applies to permits with a 5 or 7-year inspection frequency and within one or two years of their next inspection. This would serve to align the inspection frequency of similar permits in a geographic region to reduce repetitive travel.

A6.4. Severity Levels of Violations.

A6.4.1. AF-issued violations have been generally cross-referenced to NRC categories and severity levels. Since regulatory requirements have varying degrees of safety, safeguards, or environmental significance, violations of given requirements have differing levels of significance that are represented by the severity levels.

A6.4.2. Comparisons of severity between disparate activities (e.g., nuclear medicine vs. gauges) will not be made. Severity is assigned on a case-by-case basis. Repeat violations, willfulness and false representations will influence the severity of a violation.

A6.4.3. Minor violations are less severe than those defined as Severity Level IV violations. A response with corrective actions is required to be submitted IAW **paragraphs A6.5. and A6.7.** (T-1) Examples might include:

A6.4.3.1. Lapse in inventory/transfer records without loss of material.

A6.4.3.2. Lapse in PRSO appointment or expired permit without impact on safety.

A6.4.4. Severity Level IV violations involve non-compliance with NRC requirements, non-compliance with permit conditions, this instruction, or Federal regulations and pose an increased but generally minimal risk to safety and health. A Permittee response with corrective actions is required to be submitted IAW **paragraphs A6.5 and A6.7.** (T-1) AFIA/SG may recommend the RICS close violations in advance of enforcement if corrective

actions can be demonstrated during the inspection or within five (5) duty days thereafter. Examples include:

A6.4.4.1. Failure to maintain and implement radiation programs to keep radiation exposures ALARA, and/or

A6.4.4.2. Information that the NRC requires be kept by a Permittee and that is incomplete or inaccurate and of more than minor significance (e.g., area survey records).

A6.4.5. Severity Level III violations are cause for regulatory concern as violations of this nature pose a significant risk to safety, health and/or security of permitted RAM. The Permittee shall immediately contact (within 24 hours) the RICS following the violation notification/issuance by AFIA/SG. (T-1) A response with corrective actions is required to be submitted IAW **paragraphs A6.5. and A6.7**. (T-1) Examples include:

A6.4.5.1. Conduct of licensee activities by a technically unqualified person, and/or

A6.4.5.2. Delay in notifying the RIC upon loss of RAM.

A6.4.6. Severity Level II violations involve actual or high potential consequence to public health, worker safety, and/or control of RAM. The Permittee shall immediately contact (within 24 hours) the RICS following the violation notification/issuance by AFIA/SG. (T-1) A response with corrective actions is required to be submitted to the RICS within five (5) duty days of Permittee's receipt of the report. A response with corrective actions is required to be submitted IAW **paragraphs A6.5 and A6.7.** (T-1) Examples include:

A6.4.6.1. A radiation exposure of a declared pregnant worker during the gestational period in excess of 1.0 rem TEDE, and/or

A6.4.6.2. "Significant information identified by a Permittee" and not provided to AFIA/SG or the RIC because of careless disregard on the part of the PRSO.

A6.4.7. Severity Level I violations involve actual or high potential consequences to public health, worker safety, and/or control of RAM but is deemed more significant than a Severity Level II violation by the inspector. The Permittee shall immediately contact (within 24 hours) the RICS following the violation notification/issuance by AFIA/SG. (T-1) A response with corrective actions is required to be submitted to the RICS within five (5) duty days of Permittee's receipt of the report. A response with corrective actions is required to be submitted IAW **paragraphs A6.5. and A6.7.** (T-1) Examples include:

A6.4.7.1. An annual exposure of a member of the public in excess of 1.0 rem TEDE, and/or

A6.4.7.2. Inaccurate or incomplete information provided to AFIA/SG, RIC or the NRC in a deliberate nature, under official pretense and knowing such was incomplete.

A6.5. Inspection Violations and Actions.

A6.5.1. Minor. Permittees shall have five (5) duty days from the receipt of the report to respond in writing to the RICS, AFIA/SG and their respective MAJCOM. (T-1) The RIC/S reserves the right to accelerate the time of the response. The RIC/S may take enforcement against a Permittee who doesn't demonstrate timeliness or sufficiency of corrective actions.

A6.5.2. Severity Level IV. Permittees shall have five (5) duty days from the receipt of the report to respond in writing to the RICS, AFIA/SG and their respective MAJCOM. (T-1) The RIC/S reserves the right to accelerate the time of the response. The RICS may take enforcement against a Permittee who doesn't demonstrate timeliness or sufficiency of corrective actions.

A6.5.3. Severity Level I-III. Permittees shall have five (5) duty days from the receipt of the report to respond in writing to the RICS, AFIA/SG and their respective MAJCOM. (T-1) Permittees shall respond by email or in writing, within 24 hours upon verbal notification or report, whichever occurs first, to the RICS; the Permittee shall provide immediate actions taken to mitigate the violation. (T-1) The RIC/S reserves the right to accelerate the time of the response. The RIC/S may take enforcement against a Permittee who doesn't demonstrate timeliness or sufficiency of corrective actions.

A6.5.4. Stop Action: during the course of an inspection, AFIA/SG may determine a procedure or practice to be imminently dangerous to life and health (IDLH). In those cases, the inspector shall require the Permittee to temporarily cease operations (Stop Action) until corrective action is taken. The RICS shall be contacted as necessary. The inspector shall not ask the Permittee to perform a task that is hazardous, in contravention to the permit, this instruction, Federal regulations or has potential to disrupt operational activities.

A6.5.5. The AFIA/SG inspector shall offer to conduct an out-brief with the PRSO, Permittee or cognizant individual(s). In cases where the inspection reveals significant findings or Severity Level I-III violation(s), an out-brief with the Permittee and his/her commander shall be mandatory. Moreover, AFIA/SG will contact the RICS prior to the out- brief of these types of findings. Following an inspection, AFIA/SG may call the Permittee for clarifying information. Unless in conflict with this section, AFIA/SG shall generate a final report and assign a rating in 60 duty days. The Permittee must initiate corrective actions in advance of any report. (T-1)

A6.5.6. At a minimum, the final report shall be submitted to the Permittee, the RICS, and the Permittee's MAJCOM/SG.

A6.5.7. On a quarterly basis, AFIA/SG shall provide the RIC a summary of inspection findings.

A6.6. Ratings. AFIA/SG will issue either a rating of "Compliant" or "Not Fully Compliant" in the final report. Inspections that are Not Fully Compliant will report corrective actions to violations IAW **paragraphs A6.5. and A6.7**. Whereas there may be no RAM or performance objectives to evaluate, a rating will not be issued.

A6.7. Corrective Actions . When a violation is issued during an inspection, corrective actions shall commence promptly. (T-1) Permittees shall respond to the violations according to the provisions of this attachment. (T-1) The Permittee shall decide if the response needs to be coordinated with higher authorities. (T-1) Response to violations shall contain, at a minimum, the following:

A6.7.1. Reference to the violation(s). (T-1)

A6.7.2. Complete description of how the violations(s) were or will be corrected to include: (T-1)

A6.7.2.1. The root cause for the violation(s) or, if contested, the basis for disputing it,

A6.7.2.2. Corrective actions that have been taken and the results achieved,

A6.7.2.3. Corrective actions that will be taken to avoid future violations, and

A6.7.2.4. Timeline, with milestones, for corrective actions and date when full compliance was or will be achieved.

A6.7.3. Designation of an office for monitoring corrective measures, to include a point of contact. (T-1)

A6.7.4. Signature of the Permittee: "For" signatures shall not be accepted without certification the Permittee is aware of the corrective actions. (T-1) A statement to that fact shall be placed in the body of the response letter. (T-1) All letters shall be dated. (T-1)

A6.7.5. Corrective actions to separate violations shall not be commingled. (T-1) Each violation shall be addressed separately. (T-1) However, reference to a specific corrective action from another violation can made if such would resolve both violations.

A6.8. Rebuttal. If the Permittee believes a violation to be invalid, then a written rebuttal shall be submitted to the RICS within 30 duty days of receipt of the violation. (T-1) The rebuttal shall include reasons for rebuttal and reference the permit, AFIs or Federal regulations as appropriate. (T-1) An unsupported opinion or supposition that corrective action is unattainable due to external constraints may not be acceptable to close the matter.

A6.9. Disposition.

A6.9.1. Closure: upon receipt of a response to the violation from the Permittee, the RICS shall consider the merit of the corrective actions and, if satisfied, render a closure letter. A closure letter shall be submitted to the Permittee and copied, at a minimum, to their MAJCOM/SG and AFIA/SG.

A6.9.2. Non-Closure: if the RIC/S determines corrective actions are not acceptable to close the violations, enforcement actions may be taken according to **Attachment 7**. Enforcement actions shall be submitted to the Permittee and copied, at a minimum, to their MAJCOM/SG and AFIA/SG.

Attachment 7

RIC ENFORCEMENT POLICY

A7.1. Introduction and Basic Enforcement Actions. This section describes the enforcement actions available to the RIC/S in the administration of the USAF MML, and specifies the conditions under which each may be used. The basic enforcement actions are Notices of Violation and Orders of various types. Enforcement action is usually taken whenever a violation of permit requirements or regulations of more than a minor concern is identified. The nature and extent of the enforcement action is intended to reflect the seriousness of the violation involved. For the vast majority of violations, a Notice of Violation (NOV) is the usual action. NOVs are sent to the Permittee, with copies to AFIA/SG (when not issued by AFIA), and MAJCOM Bioenvironmental Engineer. They specify the nature of the violation(s) (e.g., permit condition, permit tie-down, this instruction, or Federal regulations) and require a response for corrective action by a set date. The RIC/S shall, in the administration of the MML, keep the assigned NRC Program Manager informed regarding enforcement actions.

A7.2. Escalated Enforcement Actions, RIC and RIC Secretariat Directives. Whenever inspections identify conditions or violations that result in significant regulatory concern, escalated enforcement action through an issued directive is considered. As authorized by this instruction and AFPD 40-2, a directive is a mandatory written order to modify, suspend, or to cease and desist from a given practice or activity; or to take additional action as deemed appropriate. Directives may be issued in lieu of, or in addition to NOVs, generally for Severity Level I, II, or III violations or other conditions that cause significant regulatory concern. Directives are mandatory and made effective immediately. Directives may be executed without prior notice or consultation with the Permittee whenever it is determined that the public health, interest, or safety requires, or when the order is responding to a violation involving willful negligence. For other cases, the Permittee shall be afforded an opportunity to demonstrate why the order should not be issued. Directives may be issued as follows:

A7.2.1. Permit Modification Orders are issued by the RIC/S when a change in Permittee equipment, procedures, personnel, or management controls is necessary.

A7.2.2. Suspension Orders are issued by the RICS and signed by AF/SG3P and may apply to all or part of the permitted activity. Ordinarily, a permitted activity is not suspended (nor is a suspension prolonged) for failure to comply with requirements where such failure is not of willful intent and adequate corrective action has been taken. Suspension Orders may be used to remove a threat to the public health and safety, or the environment:

A7.2.2.1. When the Permittee has not responded adequately to other enforcement action;

A7.2.2.2. When the Permittee interferes with the conduct of an inspection or investigation; or

A7.2.2.3. For any reason not mentioned above for which permit activity suspension is authorized by the RIC/S in coordination with AF/SG3P.

A7.2.3. Revocation/Termination Orders are issued by RIC/S and signed by AF/SG3P:

A7.2.3.1. When a Permittee is unable or unwilling to comply with permit requirements;

A7.2.3.2. When a Permittee refuses to correct a violation;

A7.2.3.3. When a Permittee does not respond to a NOV when a response was required by the RICS; or

A7.2.3.4. For any other reason for which revocation is authorized by the RIC/S in coordination with AF/SG3P (i.e., any condition that would warrant refusal of a permit on an original application).

A7.2.4. Cease and Desist Orders are issued by the RIC/S and may be used to stop an unauthorized activity that continues after being notified by the RICS that the activity has been deemed unauthorized.

A7.2.5. Confirmatory Action Letters are issued by the RICS confirming a Permittee's agreement to take certain actions to eliminate significant concerns about health and safety, safeguards, or the environment.

A7.2.6. Demands for Information are mandated requests of information from Permittees or other persons for the purpose of enabling the RICS to determine whether an order or other enforcement action should be issued. Demands for Information may be issued by either the RIC or the RICS.

A7.2.7. Other Orders: in addition to the Orders describe above, Orders may be issued to Permittees that include but are not limited to:

A7.2.7.1. Divert facility financial resources to purchase, replace, or excess and dispose of certain equipment;

A7.2.7.2. Increase the frequency of facility safety committee meetings;

A7.2.7.3. Implement meetings between the facility executive management and the RSO on a frequent and routine basis;

A7.2.7.4. Perform additional or supplemental training to Permittee staff;

A7.2.7.5. Increase frequencies of facility internal audits or other internal surveillance; and/or

A7.2.7.6. Appear before the RIC to present corrective actions and associated implementation timelines.

A7.3. Factors Impacting Escalated Enforcement Actions.

A7.3.1. Initial Escalated Action: When the RIC/S is made aware of conditions or violations where escalated enforcement action may be necessary, deliberations are held to determine the severity level of the findings and factors that may affect that level. Serious findings will often include deliberations with the NRC. If it is established that a willful Severity Level III violation or problem has occurred, and the Permittee has not had any previous escalated actions (regardless of the activity area) during the past to (2) years or two (2) inspection cycles, whichever is longer, the RIC/S will consider whether the Permittee's corrective action for the noted violation or problem is reasonably prompt and comprehensive. The starting point of this period shall be considered the date when the Permittee was put on notice to take corrective action.

A7.3.2. Credit for Actions Related to Identification: If a Severity Level I or II violation or a willful Severity Level III violation has occurred, or if, during the past two (2) years or two (2) inspection cycles, whichever is longer, and the Permittee has been issued at least one other escalated action, the escalated enforcement actions shall consider the factor of identification in addition to corrective action. The decision on identification requires considering all the circumstances of identification including:

A7.3.2.1. Whether the problem requiring corrective action was AFIA/SG-identified, RICS-identified, Permittee-identified, or discovered through an event;

A7.3.2.2. Whether prior opportunities existed to identify the problem requiring corrective action and if so, the age and number of those opportunities;

A7.3.2.3. Whether the problem was discovered as the result of a Permittee's self-monitoring effort, such as conducting an audit, a test, a surveillance, a design review, or troubleshooting;

A7.3.2.4. For a problem discovered through an event, the ease of discovery, and the degree of Permittee initiative in identifying the root cause of the problem and any associated violations;

A7.3.2.5. For AFIA/SG identified issues, whether the Permittee would have likely identified the issue in the same time-period if the Agency had not been involved;

A7.3.2.6. For AFIA/SG identified issues, whether the Permittee should have identified the issue (and taken action) earlier; and

A7.3.2.7. For cases in which AFIA/SG identifies the overall problem requiring corrective action (i.e., a programmatic issue), the degree of Permittee initiative or lack of initiative in identifying the problem or problems requiring corrective action.

A7.3.3. Prompt and Comprehensive Corrective Action is required for all MML violations. (T-0) In most cases, the RICS does not propose escalated enforcement actions where the Permittee promptly identifies and comprehensively corrects violations. However, a Severity Level III violation or higher will almost always result in escalated enforcement actions if a Permittee does not take prompt and comprehensive corrective actions to address the violation. The following factors are considered:

A7.3.3.1. Timeliness and Extent of Corrective Action.

A7.3.3.1.1. Consideration will be given to the:

A7.3.3.1.1.1. Timeliness of the corrective action (including the promptness in developing the schedule for long term corrective action);

A7.3.3.1.1.2. Adequacy of the Permittee's root cause analysis for the violation; and

A7.3.3.1.1.3. Comprehensive nature of the corrective action (i.e., whether the action is focused narrowly to the specific violation or broadly to the general area of concern).

A7.3.3.1.2. Whether or not the Permittee has taken immediate actions necessary, upon discovery of a violation, that will restore safety, and return the permit to full compliance; and

A7.3.3.1.3. Whether or not the Permittee has developed and implemented lasting actions that will not only prevent recurrence of the violation, but will be comprehensive enough, given the significance and complexity of the violation, to prevent occurrence of violations with similar root causes.

A7.3.3.2. Adequacy of Corrective Actions: AFIA/SG will assist the RICS to determine adequacy of correction actions to violations. The RICS shall determine the adequacy of corrective actions to violations that are self-identified, result from an event, or are MML identified. The judgment of the adequacy of corrective actions may also occur at the time of an enforcement conference (i.e., by outlining substantive additional areas where corrective action is needed).

A7.3.3.3. Corrective Action Process: the following shall be used for developing and implementing corrective actions. Corrective action shall be comprehensive enough to not only prevent recurrence of the violation at issue, but also to prevent occurrence of similar violations. These items should help in focusing broad corrective actions to the general area of concern rather than to specific violations. The actions that need to be taken are dependent on the facts and circumstances of the particular case. The corrective action process should involve the following steps:

A7.3.3.3.1. Conduct a complete and thorough review of the circumstances that led to the violation;

A7.3.3.3.2. Identify the root cause of the violation; and

A7.3.3.3.3. Take prompt and comprehensive corrective action that will address the immediate concerns and prevent recurrence of the violation.

A7.4. Enforcement Conferences.

A7.4.1. When a Permittee has been issued an NOV and fails to conform to effective corrective actions, the RIC/S may decide to initiate an enforcement conference with the Permittee to define the actions necessary to begin effective corrective measures to the violation. The RIC/S will issue official correspondence to the Permittee informing them of the enforcement conference. The enforcement conference can be implemented by any necessary means to affect a productive dialogue between the Permittee and the RIC/S.

A7.4.2. The purpose of the conference is for the RIC/S to gather the necessary facts and information from the Permittee in order to make an informed decision about the violation. Objectives of the conference will include determining:

A7.4.2.1. The root cause and analysis of the violation(s);

A7.4.2.2. That a Permittee’s response is deemed timely and appropriate; and

A7.4.2.3. That corrective actions to prevent similar recurrence of the violation(s) have been taken.

A7.4.3. Results of the enforcement conference will be formalized by the RICS with correspondence to the Permittee describing the actions the Permittee must perform to resolve the violation(s).

A7.5. Appealing Enforcement Actions. The Permittee or any other person adversely affected by an NOV or Order may appeal said action. The Permittee may submit an appeal via official correspondence to the RIC/S for the violations and findings. The Permittee must provide ample regulatory justification in the correspondence to warrant an appeal of the violations. (T-1) The RIC/S shall review the appeal by the Permittee and decide actions to be taken based on the merit of the request, corrective actions taken by the Permittee, and the severity levels of the violations. The RIC/S may at its option, initiate a review of Permittee program operations concerning the enforcement action, grant the appeal to mitigate the severity level of the violation and/or enforcement actions, or deny the appeal.

A7.6. NRC Related Administrative Actions. In addition to the enforcement actions by the RIC/S, the NRC also uses administrative actions, such as Notices of Violation, Notice of Deviation, Notices of Nonconformance, Confirmatory Action Letters, Letters of Reprimand, and Demands for Information to supplement its enforcement program. The NRC may issue orders and impose civil penalties for violations of NRC regulations and MML conditions. Note that any notice of violation involving radiological working conditions, proposed imposition of civil penalty, or order issued and any response must be posted by the Permittee IAW 10 CFR 19.11(a)(4).

A7.6.1. Civil Penalty: only the NRC may impose civil penalties. A civil penalty is a monetary penalty that may be imposed by the NRC for violation of certain specified licensing provisions of the Atomic Energy Act or supplementary NRC rules or orders, any requirement for which a MML permit or NRC license may be revoked, reporting requirements under Section 206 of the Energy Reorganization Act, and NRC Regulations and MML program conditions. If the application of the normal guidance in this policy does not result in an appropriate sanction, as warranted, then the NRC may apply its full enforcement authority where the action is warranted. NRC action may include civil penalties, issuing appropriate orders, and assessing civil penalties for continuing violations on a per day basis, up to the NRC limit per violation.

A7.6.2. Mitigation of Enforcement Actions: the NRC may exercise discretion and refrain from enforcement action, if the outcome of the normal process described in this policy does not result in a sanction consistent with an appropriate regulatory message. In addition, even if the NRC exercises this discretion, when the Permittee failed to make a required report to AFIA/SG or the RIC/S, a separate enforcement action may be issued for the Permittee's failure to make a required report.

A7.7. Enforcement Actions Involving Individuals. An enforcement action against an individual will be taken only when the RIC/S is satisfied that the individual fully understood, or should have understood, his or her responsibility; knew, or should have known, the required actions; and knowingly, or with careless disregard (i.e., with more than mere negligence) failed to take required actions which have actual or potential safety significance. Transgressions of individuals at the level of Severity Level III or IV violations will be handled by citing the facility Permittee with a requirement that specific actions concerning the individual be taken.

A7.7.1. Management Failures: action against an individual will not be taken if it demonstrates that the improper action by the individual was caused by management failures. The following are examples of situations to illustrate this concept but do not represent all potential cases:

A7.7.1.1. Inadvertent individual mistakes resulting from inadequate training or guidance provided by the Permittee;

A7.7.1.2. Inadvertently missing an insignificant procedural requirement when the action is routine, fairly uncomplicated, and there is no unusual circumstance indicating that the procedures should be referred to and followed step-by-step;

A7.7.1.3. Compliance with an express direction of management that resulted in a violation unless the individual did not express his or her concern or objection to the direction; or

A7.7.1.4. Individual error directly resulting from following the technical advice of an expert (e.g., advisor or subcontractor) unless the advice was clearly unreasonable and the permitted individual should have recognized it as such.

A7.8. Willful Violations and Actions of Individuals. This paragraph applies if the actions described in these examples are taken by Permittee authorized individuals or otherwise taken deliberately by an individual working under permitted activities. The RICS will promptly report all suspected deliberate violations of NRC requirements to NRC Region IV office. RIC enforcement action may consist of requiring actions be taken directly toward the individual. The RIC may address immediate and ongoing safety issues as well as initiate an investigation into suspected deliberate violations unless directed otherwise by the NRC. In addition, the Permittee or other personnel may report willful violations to AF investigative or legal agencies. Listed below are examples of situations that could result in enforcement actions against individuals.

A7.8.1. The situations include, but are not limited to, violations that involve:

A7.8.1.1. Willfully causing a Permittee to be in violation of permit requirements;

A7.8.1.2. Willfully taking action that would have caused a Permittee to be in violation of requirements but the consequence(s) of the action did not occur because it was detected and corrective action was taken;

A7.8.1.3. Recognizing a violation of procedural requirements and willfully not taking corrective action.

A7.8.1.4. Willfully defeating alarms and/or interlocks that have safety significance;

A7.8.1.5. Dereliction of duty;

A7.8.1.6. Falsifying records required by MML requirements or by the Permittee;

A7.8.1.7. Willfully providing, or causing a Permittee to provide, an Inspection Agency inspector with inaccurate or incomplete information on a matter material to the radiation protection program; or

A7.8.1.8. Willfully withholding safety significant information rather than making such information known and available to appropriate supervisory or technical personnel in the Permittee's organization.

A7.8.2. Factors in Deciding Enforcement Actions: In its determination of whether to issue requirements that actions be taken concerning an individual, the following factors will be considered:

A7.8.2.1. The level of the individual within the organization;

A7.8.2.2. The individual's training and experience as well as knowledge of the potential consequences of the misconduct;

A7.8.2.3. The safety consequences of the misconduct;

A7.8.2.4. The degree of supervision of the individual, i.e., how closely is the individual monitored or audited and the likelihood of detection;

A7.8.2.5. The employer's response, (e.g., disciplinary action taken);

A7.8.2.6. The attitude of the offender (e.g., admission of misconduct, acceptance of responsibility);

A7.8.2.7. The degree of management responsibility or culpability; and

A7.8.2.8. Who identified the misconduct.

A7.8.3. Types of Enforcement Actions: any proposed enforcement action against individuals must be issued by the RIC/S. The particular sanction to be used should be determined on a case-by-case basis. Notices of Violation and Orders are examples of enforcement actions that may be appropriate involving individuals. Orders involving individuals might include provisions that would:

A7.8.3.1. Prohibit involvement in MML permitted activities for a specified period of time (normally the period of suspension would not exceed five (5) years) or indefinitely until certain conditions are satisfied (e.g., completing specified training or meeting certain qualifications); or

A7.8.3.2. Require retraining, additional oversight or independent verification of activities performed by the person, if the person is to be involved in permitted activities.

A7.8.4. Disciplinary Enforcement: adverse personnel actions and other disciplinary actions are the responsibility of the organization to which the individual to be disciplined belongs. Discretion may be exercised by either escalating or mitigating enforcement action to ensure that the proposed enforcement action reflects the Inspection Agency and the RICS concerns regarding the violation(s) at issue and that it conveys the appropriate message to the Permittee.

A7.9. Violations of Reporting Requirements or Submitting False Information.

A7.9.1. Reporting: Permittees are expected to provide complete, accurate, and timely information and reports when required. (T-1) A Permittee will not usually be cited for a failure to report a condition or event unless the Permittee was actually aware of the condition or event that it failed to report. A Permittee will, on the other hand, usually be cited for a failure to report a condition or event if the Permittee knew of the information to be reported, but did not recognize the reporting requirements.

A7.9.2. Inaccurate and Incomplete Information: a violation of MML requirements involving submittal of incomplete and/or inaccurate information can result in the full range of enforcement actions.

A7.9.2.1. Identification of false information. The labeling of a communication failure as a material false statement will be made on a case-by-case basis and will be reserved for egregious violations. Violations involving inaccurate or incomplete information or the failure to provide significant information identified by a Permittee will be categorized based on:

A7.9.2.1.1. The degree of knowledge that the communicator should have had, regarding the matter, in view of his or her position, training, and experience;

A7.9.2.1.2. The opportunity and time available prior to the communication to assure the accuracy or completeness of the information;

A7.9.2.1.3. The degree of intent or negligence, if any, involved;

A7.9.2.1.4. The formality of the communication;

A7.9.2.1.5. The importance of the information which was wrong or not provided;

A7.9.2.1.6. The rationale of the explanation for not providing complete and accurate information;

A7.9.2.1.7. Efforts taken to correct information that is later identified as false or incomplete; and/or

A7.9.2.1.8. Failures to correct false or incomplete information.

Attachment 8

MANAGING ALLEGATIONS

A8.1. Introduction. All Permittee employees are required to be aware of NRC Form 3, Notice to Employees**,** which must be posted for all employees to view, and their right to make an allegation (10 CFR Part 19). (T-0) Allegations will be investigated and reported IAW NRC Management Directive 8.8, *Management of Allegations*. It is the responsibility of employees to immediately identify conditions contrary to this and to work within an organization's resources to obtain corrective action. (T-1) If such cannot be accomplished due to a threatening environment, limitation of resources or unwillingness of management, an allegation can be made at any level, anytime, among the following hierarchy:

A8.1.1. Supervisors;

A8.1.2. PRSOs or IRSOs;

A8.1.3. Commanders;

A8.1.4. Inspector General;

A8.1.5. USAF Radioisotope Committee Secretariat;

A8.1.6. USAF Radioisotope Committee;

A8.1.7. US Nuclear Regulatory Commission: although it is customary, and encouraged, for employees to use their supervisory chain to seek expedient resolution of problems at the lowest level, this is not mandatory. Anonymous allegations can be made; however, resolution may be impacted by quality of information received.

A8.2. Reporting Allegations.

A8.2.1. Allegations containing the following information can be processed most effectively.

A8.2.1.1. Name, occupation and contact information of person making the allegation;

A8.2.1.2. Date and description of issue;

A8.2.1.3. Individuals involved and witnesses;

A8.2.1.4. Outcome and Consequences;

A8.2.1.5. Details of previous reports, including who received them.

A8.2.1.6. Any corrective actions to date; and

A8.2.1.7. Expectations.

A8.3. RICS Handling of Allegations.

A8.3.1. In the event the RICS receives an allegation, the following measures will be taken:

A8.3.1.1. If the allegation is against the RICS, it will be immediately referred to the appropriate NRC Regional Office for disposition and AF/SG3/5 shall be informed.

A8.3.1.2. If the allegation is not against the RICS, the appropriate NRC Regional Office will be notified. A brief written report, provided by the individual making the allegation will be forwarded to AFMSA/SG3PB for review and determination of the main merits of investigating the allegation. The allegation will then be presented to the Chief, RICS, and, if deemed necessary, an Allegation Review Board (ARB) will be formed to conduct an investigation. (MML)

A8.3.2. The ARB will be comprised of the following representatives:

A8.3.2.1. Chair, RIC (will serve as the Chair, ARB);

A8.3.2.2. Chief, RICS (RIC member);

A8.3.2.3. Member of the affected MAJCOM, Senior Health Physicist or Bioenvironmental Engineer;

A8.3.2.4. AFIA/SGI (RIC member);

A8.3.2.5. Officer within the affected unit; and

A8.3.2.6. AFLOA/JAC (RIC member).

A8.3.3. The ARB should document the allegation investigation in an inspection report. It is important that the inspection reports protect the identity of the individual(s) making the allegation(s) and not provide any information in the report that may reveal his/her identity. The inspection report should not contain any detailed information of the inspection that would correlate the inspection to an allegation. The inspection report findings should be included in the allegation file for the respective allegation case for final resolution by the RIC.

A8.3.4. Once determined adequate by the RIC/JA, the ARB will provide a final allegation investigation report and recommended course(s) of action to the RIC. An allegation involving a health or safety issue will have a higher priority.

A8.3.5. All suspected deliberate violations of NRC requirements involving immediate and ongoing safety issues will be reported to the appropriate NRC Regional Office for disposition by the RIC. Concurrently, an immediate investigation may be conducted by the supervisors; PRSOs or IRSOs; Commanders; Inspector General; RICS; RIC; or ARB, as appropriate.

A8.4. Protecting the Identity of Individuals Making Allegations. The name of the individual(s) making the allegation(s) and other identifying information which could potentially identify the individual(s) will not be used in discussions of allegations or documents released to the Permittee or members of the public related to the allegation. The identity of the individual(s) will be protected, and the Inspection Agency will not advise a Permittee that an inspection is based on an allegation. Exceptions to this policy include:

A8.4.1. The circumstance where the individual has no objection to the release of his/her identity and is documented in the allegation file;

A8.4.2. Communications within and between the RIC, RIC Secretariat, the NRC, the AF Inspection Agency, and other parties that require knowledge of this identity to properly manage the allegation; or

A8.4.3. The circumstance where such protection would impact worker health and safety.

A8.5. Maintenance of Allegation Files . The RICS maintains the official file of all information pertaining to each allegation. It is important that the RICS and RIC members assure there is no unauthorized reproduction of information related to an allegation. Copies of allegation files may be made following approval by the AFMSA/SG3P case representative. All copies made of an allegation file must be returned to the file or destroyed. These files, if and when collected, must be maintained in a manner that is consistent with DOD Directive (DODD) 5400.11, *DOD Privacy Program*, and AFI 33-332, *USAF Privacy and Civil Liberties Act Program*. (Ref Privacy Act of 1974)

A8.6. Allegation Information in Inspection Reports. The investigation into the allegation should be documented in an inspection report. It is important that the inspection reports protect the identity of the individual(s) making the allegation(s) and not provide any information in the report that may reveal his/her identity. The inspection report should not contain any detailed information of the inspection that would correlate the inspection to an allegation. The inspection report findings should be included in the allegation file for the respective allegation case for final resolution by the RIC.

A8.7. Resolution of Allegations. The RIC will review all allegations received. Once all of the necessary information related to the allegation has been collected, the RIC will review the allegation file to determine if any further actions are required before a final decision is made. If any findings of an allegation investigation are in violation of the regulations, then the severity level of the violation will determine the response by the RIC to the command as described in the Enforcement Policy, **Attachment 7**.

A8.8. Allegation Close-Out Report. Once the final disposition of an allegation is approved by the RIC, a formal response and close-out report of the RIC findings will be forwarded to the individual(s) who made the allegation by the RICS. If the individual(s) does/do not agree with the findings of the RIC, then the individual(s) may appeal the findings of the RIC with any additional information necessary to support the appeal of the final allegation findings.

A8.9. Allegation to the NRC. Nothing in this attachment prevents an individual from making an allegation directly to the NRC, particularly as it pertains to allegations levied against the RICS. The AF IG can provide assistance.

Attachment 9

RADIOISOTOPE COMMITTEE (PROTOCOL)

A9.1. USAF Radioisotope Committee (RIC) Charter . The RIC is responsible for providing regulatory oversight for the use of RAM by USAF organizations except weapons related materials falling under Section 91(a) or 91(b) of the AEA. The RIC approves controls for acquiring, receiving, storing, distributing, using, transferring, and disposing of RAM to ensure compliance with the USAF Master Materials License, NRC policy and guidance, other applicable regulatory requirements, and DOD and USAF directives and instructions.

A9.2. RIC Committee Members, Organization, and Responsibilities.

A9.2.1. **Chapter 2** of this AFI specifies the membership and general roles for each member of the RIC. At the request of the RICS or the RIC Chairman, additional advisors can be invited.

A9.2.2. RIC Secretariat (RICS): Organization, scheduling and planning of the RIC meeting, and generation of meeting minutes.

A9.2.3. RIC Chair: Open RIC meetings, and preside over their proceedings. Assist in maintaining the discussion focus of the agenda items, and resolve disagreements. Adjourn meeting once completed.

A9.2.4. RIC Members: Ensure either they or their alternates attend scheduled RIC meetings and are prepared to address agenda items.

A9.3. Business Practices.

A9.3.1. The RIC Chair and the RICS will establish the detailed procedures for RIC meetings. In all cases, the meetings will meet the requirements of the USAF MML and other USAF requirements for meetings of this type.

A9.3.1.1. In accordance with MML requirements, a formal RIC meeting shall occur as represented to and agreed upon by the AF and NRC. RIC meetings are schedule by the RICS.

A9.3.1.2. Ad hoc meetings can be called by the RIC Chair on an as needed basis. These meetings are called to address emergent issues that require timely action by the RIC.

A9.3.1.3. Rapid staffing of an action can be approved by the RIC Chair to address emergent issues for which an ad hoc meeting cannot be convened. For a rapid staffing the RICS will prepare a staffing package that addresses the issue and provides the voting members of the RIC the ability to vote without meeting. All rapid staffing actions will be discussed at the next RIC meeting.

A9.3.1.4. A quorum for a meeting is established by having a least one-half of the voting members present.

A9.3.2. Meetings will be conducted IAW all applicable policies and procedures. The RIC Chair and the RICS will establish the specific procedures for the conduct of routine meetings, ad hoc meetings and rapid-staffing actions.

A9.3.3. Motions and Voting.

A9.3.3.1. Only members and guests recognized by the Chair may speak.

A9.3.3.2. Only voting members may vote on an issue.

A9.3.3.3. Generally, before any item can be discussed, there should be a motion made and seconded. Once a motion has been seconded, discussion will follow. After discussion, one of four things can happen:

A9.3.3.3.1. There can be a vote on the motion. In the event of a tie, the Chair casts the deciding vote; or

A9.3.3.3.2. The motion can be amended (second required). Then there can be discussion on the amendment. The amendment can be voted. If the amendment passes, the motion automatically passes. If the amendment fails, the motion still stands and can be discussed until voted; or

A9.3.3.3.3. The motion can be tabled (second required). There can be no discussion on a motion to table--a vote must be taken immediately. If the vote is to table, no further discussion can take place on the motion; or

A9.3.3.3.4. There may be no action on the motion--therefore it becomes old business at a future meeting.

A9.3.3.4. Motions must be clear and concise. A motion to "improve permitting practices" would be vague and discussions could meander. However, a motion to "implement template permit processes for a new chemical agent monitor" is specific and could be effectively discussed and acted on.

A9.4. Disagreement Resolution. The RIC Chair is responsible for maintaining order. On procedural questions, the Chair's ruling will be final.

A9.5. Record Keeping.

A9.5.1. The RICS will ensure that appropriate files for each meeting are maintained IAW all applicable requirements. This will include as a minimum, the agenda, meeting minutes, copy of all pertinent reference materials, background information, memoranda, standing reports, and presentations applicable to each meeting.

A9.5.2. RICS will maintain correspondence, permit actions, NOVs or enforcement actions, and other applicable materials during the quarter to ensure a complete agenda. (MML)

A9.5.3. Records of RIC meetings, to include agendas, presentations, and meeting minutes, shall be kept for the duration of existence of the MML.