

U.S. AIR FORCE REGULATIONS

AFR 67-8 Radioactive Commodities in the DoD Supply Systems

AFR 71-4 Preparation of Hazardous Materials for Military Air Shipment
 (Chapter 12 - Radioactive Materials)

AFR 127-4 Investigating and Reporting U.S. Air Force Mishaps (Chapter 10 -
 Nuclear Accident, Incident, and Deficiency (AID) Reporting)

AFR 160-132 Control of Radiological Health Hazards

AFR 161-8 Control and Recording Procedures Occupational Exposure to
 Ionizing Radiation

AFR 161-16 Radioactive Material Authorizations (Draft)

AFR 161-17 USAF Occupational and Environmental Health Laboratory (OEHL)
 Services

AFR 169-3 Use of Human Subjects in Research, Development, Test, and
 Evaluation

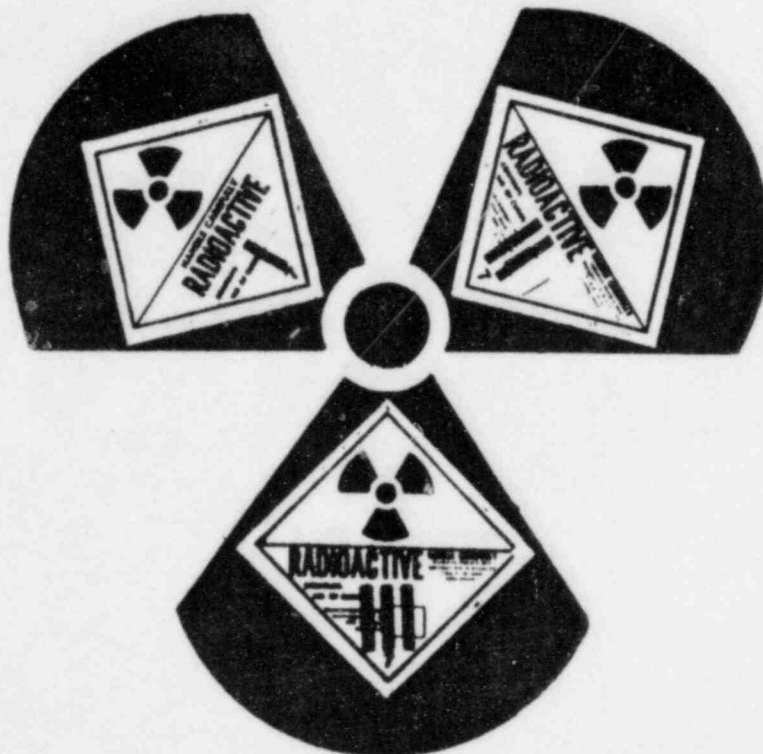
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RADIOACTIVE COMMODITIES IN THE DoD SUPPLY SYSTEMS



DEPARTMENT OF DEFENSE
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DEFENSE LOGISTICS AGENCY,
DEPARTMENTS OF THE ARMY, THE NAVY,
AND THE AIR FORCE
WASHINGTON, D. C.

(DLA supplementation is permitted at all levels.)
(Army supplementation is permitted.)
(Navy and Marine Corps supplementation is permitted.)
(Air Force supplementation is permitted.)

FOREWORD

This publication contains interservice policy, mandatory procedures and responsibility guidance for all activities and installations of the Military Services and the Defense Logistics Agency that are engaged in the development, training, procurement, storage, maintenance, control, shipment, and disposal of radioactive commodities. Nuclear reactors and nuclear weapons are excluded from this publication, except for components and ancillary equipment which are common to other end items of supply. This publication does not apply to users of radioactive commodities.

This publication will be revised periodically to reflect policy and procedural improvements and augmentations. The Chief, Depot Operations Division, Directorate of Supply Operations, HQ DLA (DLA-OW) is responsible for interservice coordination and revision of this publication and will review and update as required.

BY ORDER OF THE DIRECTOR, DEFENSE LOGISTICS AGENCY, AND THE SECRETARIES OF THE ARMY, THE NAVY, AND THE AIR FORCE.

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CHAPTER I GENERAL

1-1. PURPOSE AND SCOPE. This publication contains interservice policy, outlines mandatory procedures, and identifies the responsibilities of organizational elements and key personnel worldwide which are necessary to effect radiation protection standards for the control of radioactive commodities under DoD cognizance. This publication does not apply to: (1) users of radioactive commodities; (2) nuclear reactors and nuclear weapons, except for components and ancillary equipment which are common to other end items of supply; or (3) unique radioactive materials used as research, test or production devices.

1-2. POLICY

- a. Personnel exposure to ionizing radiation shall be kept as low as is reasonably achievable (ALARA) in accordance with DoDI 6055.8, Occupational Radiation Protection Program, and within Federal and applicable Military Service or Agency (hereinafter referred to as Service or Agency) radiation protection standards.
- b. Personnel who are required to work with radioactive commodities or in radiation areas shall be instructed on potential hazards, on precautions to minimize exposure, and on operating procedures prior to being exposed to radiation.
- c. Life cycle controls shall be established for each commodity containing radioactive material as early as possible in the development/design stage. Licenses and service authorizations, as applicable, shall be obtained by the responsible Service or Agency prior to awarding procurement contracts.
- d. The use of radioactive materials in items of supply shall be kept to a minimum consistent with DoD needs. Practical, nonradioactive substitutes shall be procured and used when feasible. Radium shall not be procured or used until it has been established that a nonradioactive substitute or a less hazardous radioactive substance cannot feasibly be used.
- e. The environmental consequences during each element of the lifecycle shall be assessed in accordance with the National Environmental Policy Act (NEPA) and Federal and Service or Agency environmental assessment directives. This should be done at the earliest practicable stage in the planning process, including the development stage of a radioactive commodity and in all instances prior to the decision to procure the commodity.
- f. This document does not waive any consumer protection or product safety requirements published or to be published by other Federal regulatory agencies.
- g. Guidance contained in this document should be included in technical publications applicable to the operation, maintenance, storage, handling, transportation and disposal of radioactive material.
- h. In accordance with DoDD 6050.8, the Department of Defense is not to permit the use of DoD installations for the storage of non-DoD-owned toxic or hazardous materials.

1-3. DEFINITIONS

- a. Airborne Radioactive Material. Any radioactive material dispersed in the air, in the form of dusts, fumes, mists, vapors, or gases.
- b. Anticontamination Clothing. Protective clothing worn by an individual to prevent contamination of the individual or personal clothing with radioactive material.

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- c. Controlled Area. Any area in which radioactive material or radiation producing devices are used or stored and access to which is controlled for the protection of individuals from exposure to radiation.
- d. High Radiation Area. Any area that is accessible to personnel in which radiation exists at such levels that a major portion of the body could receive a dose in excess of 100 millirem in any one hour.
- e. Ionizing Radiation. Electromagnetic or particulate radiation capable of causing ionization in its passage through matter. Alpha, beta, and neutron particles, gamma and X-rays, are examples of ionizing radiation.
- f. License Exempt Material Items. Items containing radioactive material not subject to Nuclear Regulatory Commission (NRC) regulations or radioactive material exempt from licensing by the NRC as specified in Title 10, Code of Federal Regulations (10 CFR).
- g. Licensed Material. Radioactive material that is received, possessed, used, or transferred under a general or specific license issued by the NRC.
- h. Life Cycle Controls. The composite of all management actions to assure that the credible hazards associated with possession and use of radioactive commodities are minimized. Such controls are established during each phase of the life-cycle to assure that the effects of radiation on personnel and the environment are maintained within acceptable limits. Controls are established during the Research and Development phase to assure that introduction of radioactive commodities into the supply system are held to an absolute minimum consistent with mission requirement; and special capabilities, facilities, and procedures for supply, transportation, maintenance, use, training, and disposal (including demilitarization) are or will be provided.
- i. Naturally Occurring or Accelerator Produced Material (NARM). Radioactive material not subject to ~~NRC~~ controls, however, the receipt, possession, use or transfer may require specific authorization by the Service or Agency.
- j. Non-occupationally Exposed Individual. An individual whose work is not normally performed in a controlled area and whose duties do not normally involve exposure to ionizing radiation; however, an individual may have reason to enter a controlled area in the performance of duties (messengers, delivery men, maintenance workers, etc.). The exposure to ionizing radiation shall not be in excess of that allowed to any individual in the population at large.
- k. Occupationally Exposed Individual. Synonym-Radiation Worker. An individual whose work is performed in a controlled area and whose duties routinely involve exposure to ionizing radiation.
- l. Radiation Area. An area in which an individual could receive a radiation dose of 5 millirem or more in any one hour or 100 millirem or more in any 5 consecutive days. For practical purposes, a radiation area shall be considered to be any area in which the radiation intensity is greater than 2 milliroentgen per hour (mR/hr) but less than 100 mR/hr. Specific Service or Agency guidance shall determine which standard will prevail.
- m. Radiation Incident. The unplanned loss of control of radioactive material.
- n. Radioactive Commodity. An item of Government property composed in whole or in part of radioactive materials and to which a National Stock Number (NSN) or part number has been assigned. A radioactive commodity is any item in the DoD Supply System that contains radioactivity equal to or in excess of the quantities listed in 10 CFR Part 20, Appendix C, or contains a specific activity greater than 0.002 microcuries per gram of radioactive material (49 CFR Part 173.389) and is

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license exempt. These quantities are established so that control procedures will be published for the receipt, storage, use, maintenance, transportation and disposal.

o. Radioactive Devices. Radioactive devices are manufactured articles, such as instruments, clocks, electron tubes, apparatus or similar devices having radioactive materials (other than liquids) in a non-dispersible form as a component part. For radioactive gases, the requirement for the radioactive material to be in a nondispersible form does not apply.

p. Radioactive Material. Any material or combination of materials which spontaneously emits ionizing radiation.

NOTE: Radioactive materials, as referenced above, include natural elements such as radium and accelerator-produced radionuclides and NRC licensed material.

q. Radioactive Waste. Consists of any of the following:

(1) Property which has become contaminated to the extent that decontamination is economically unsound.

(2) Surplus radioactive material whose sale, transfer, or donation is prohibited.

(3) Radioactive material which is determined to be unwanted after having been advertised as being surplus.

(4) Waste, which is radioactive, resulting from production, possession, or use of radioactive material.

r. Radiological Safety, Radiation Protection or Radiation Safety Officer. An individual who is designated by the Commanders or Commanding Officers, or Directors of the Authorized Activity to provide consultation and advice on the degree of hazards associated with ionizing radiation and on the effectiveness of measures to control these hazards. This individual shall be qualified technically by virtue of education, training, and experience commensurate with the type and hazard of the radiation source(s) for which he will be responsible. The terms "Radiological, Radiation Protection, Radiation Safety Officer" are not intended to denote commissioned status.

s. Services or Agency. Includes Army, Air Force, Navy, Marine Corps, and the Defense Logistics Agency.

t. Use of "Shall", "Will", "Should", and "May". In this publication the words "Shall" or "Will" are used in an imperative sense. "Should" is used in a recommendatory sense; "May" is used in a permissive sense. It may be necessary to use "Will" in cases where simple futurity is required, i.e., "Power for the motor will be supplied by the ship." Also, unless the context requires otherwise, words imparting the singular include the plural and vice versa.

u. Supply and Maintenance Facilities. Will include the following:

Army:	Class II Supply and Maintenance Facilities within CONUS and Overseas, and supply, procurement, maintenance and transportation activities at Class I installations.
Navy:	Any naval activity or fleet unit assigned responsibility to store, maintain or process subject material, such as Naval Supply Centers, or Depots, Naval Shipyards, etc.
Air Force:	Air Force Logistics Command, Air Logistics Centers.
Marine Corps:	Marine Corps Logistics Bases.
Defense Logistics Agency:	Defense Supply Centers and Defense Depots.

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v. User. An individual or an organizational element that uses or operates a radioactive commodity item because of mission requirement.

1-4. RESPONSIBILITIES

a. Commanders of Research and Material Developing Agencies shall:

(1) Assure nonradioactive substitutes are used whenever feasible. Proposals to incorporate radioactive material into a commodity must consider the cost effectiveness and safety against the use of alternative methods to achieve project goals. The cost of decontamination, property restoration, and disposal shall be included in the cost effectiveness study. When radioactive materials are used all relevant documents describing the commodity shall indicate that the commodity is radioactive, the amount(s) of activity, and the radioisotope(s) involved.

(2) Assure sufficient testing has been performed and coordinated with health, safety and license managers to establish that the radioactive commodity is militarily useful and that proposed life cycle instructions are adequate.

(3) Develop safety criteria in design; and establish, in publications such as technical manuals and bulletins, specific safe procedures and physical standards pertaining to equipment and systems which they develop. Publications prepared shall be submitted to the NRC License and/or Service Authorization Manager for approval.

(4) Prepare maintenance allocation charts which designate allowable repair operations at each maintenance echelon, and indicating which repair echelons require a license or authorization.

(5) Prepare environmental and safety documentation to assess the safety and environmental consequences during the Life Cycle of the commodity. Safety documentation shall be in accordance with DODI 5000.36 and MIL-STD-882.

b. Commanders of Training Agencies shall:

(1) Establish training courses for personnel who are responsible for following procedures as set forth in this manual.

(2) Incorporate the specific safe^{ty} procedures and ~~safe~~ physical standards established by materiel developing agencies into applicable training curricula and training documents.

c. Commanders of Materiel and Supply Agencies shall obtain and administer required licenses or service authorizations permitting the use of radioactive commodities for which they have logistical responsibility and shall designate the manager for each license or service authorization except for Marine Corps where licenses are maintained by the Deputy Chief of Staff for Installations and Logistics, HQ U.S. Marine Corps, and the Air Force where licenses are maintained by the USAF Radioisotope Committee, HQ Air Force Medical Service Center (HQ AFMSC.)

d. Commanders of Procuring Activities shall:

(1) Assure that appropriate NRC licenses or service authorizations have been obtained by the requiring Service or Agency prior to contract award.

(2) Obtain approval from the applicable NRC license or Service Authorization Manager through the Material Inventory Control Point before each procurement or reprocurement action to prevent violation of the limits and conditions of the applicable license or authorization.

(3) Assure that special procurement clauses and procurement documentation for radioactive materials are included in contracts for such commodities.

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(4) Assure that procurement contracts require marking and labeling of radioactive commodities in accordance with MIL-STD-129.

(5) Assure that the data required by the DoD Hazardous Materials Information System (HMIS) as addressed in DoD Instruction 6050.5 and the appropriate Service/Agency implementing regulations are acquired and provided to the appropriate focal point cited in the DoD HMIS Procedures Manual, DoD 6050.5-M.

(6) Assure that 41 CFR, Part 50-204, Safety and Health Standards for Federal Supply Contracts, are included in all applicable Commodity Contracts.

e. Commanders of Material Inventory Control Points shall:

(1) Maintain records of quantities of radioactive commodities procured, bulk storage, and disposal as well as such other records which are required to be kept by the managers of the NRC license or service authorization.

(2) Assure radioactive material procurements do not exceed use, quantity or activity limitations imposed by licenses or service authorizations and that receiving agencies are properly authorized to receive the material under the conditions of the applicable license or service authorizations.

(3) Coordinate matters pertaining to radioactive commodities with the appropriate NRC License or Service Authorization Manager.

(4) Establish and maintain appropriate data to identify applicable items as radioactive. Radioactive identification data will be incorporated with item management data and disseminated through the supply cataloging system.

(5) Assure that the same NSN will not apply to both radioactive and non-radioactive items in the Federal Supply System.

(6) Assure that the same NSN cannot apply to functionally identical or like radioactive items having different radioisotopes.

(7) Assure commodities are identified, marked and labeled in accordance with MIL-STD-129. Note: (5), (6), & (7) do not apply to low level exempt items (e.g., electron tubes).

f. Commander, Defense Logistics Services Center shall: assure that the Federal Cataloging System has the capability to assign different NSNs to items that meet the criteria of paragraphs 1-4 e(5) and (6).

g. Commanders of Material Maintenance Control Points are responsible for assuring maintenance performed on radioactive commodities is consistent with conditions of applicable licenses or service authorizations.

h. Commanders of Supply and Maintenance Facilities shall:

(1) Assure safe handling, storage, and shipment of radioactive commodities.

(2) Assure safe operation of repair and maintenance facilities handling radioactive components, where applicable.

(3) Report to Material Inventory Control Points discrepancies between data published (Service Technical Bulletin for Radioactive Commodities; MIL-HDBK-600; and DoD 6050.5L or DoD 6050.5LR) concerning radioactive commodities, and data determined by examination at the facility. Also report the discrepancy to the activity responsible for maintenance of the published data.

(4) Assure that commodities and/or end item received for repair/maintenance are marked in accordance with MIL-STD-129 prior to return to stock or use.

(5) Assure radioactive commodity storage areas are surveyed and monitored.

(6) Assure procedures are prepared for handling credible emergencies during receipt, storage, maintenance, and shipment.

(7) Report defective radioactive commodities to the Material Inventory Control Point.

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(8) Comply with Service or Agency directives for the disposal of excess, surplus and condemned radioactive commodities and of radioactive waste.

i. Managers of NRC Licenses or of Service or Agency Authorizations shall:

(1) Coordinate, obtain, administer, review, amend, and maintain necessary licenses and authorizations for radioactive commodities managed by the command to which they are assigned.

(2) Provide information and guidance to all commanders specified in subparagraphs a through h above, with respect to limitations, constraints, and special data, conditions or procedures which affect the responsibilities of those commanders for each radioactive commodity.

(3) Monitor the various elements of the life cycle program of the radioactive commodities to assure compliance with conditions of the license or authorization.

(4) Assure that licensed or authorized material is only transferred to authorized persons or organizations.

(5) Assure proper disposition of radioactive materials and decontamination of areas is completed prior to license or authorization termination.

1-5. REFERENCES

- a. Title 10, Code of Federal Regulations, Energy.
- b. Title 29, Code of Federal Regulations, Section 1910, OSHA Safety and Health Standards.
- c. Title 32, Code of Federal Regulations, National Defense.
- d. Title 40, Code of Federal Regulations, Protection of the Environment.
- e. Title 41, Code of Federal Regulations, Part 50-204, Safety and Health Standards for Federal Supply Contracts.
- f. Title 49, Code of Federal Regulations, Transportation.
- g. DoD 4160.21-M, Defense Utilization and Disposal Manual (Includes previously referenced DoD 4140.34-M, Defense Utilization Manual).
- h. DoDI 5000.36, System Safety Engineering and Management.
- i. DoD 5100.52, Radiological Assistance Responsibilities in Event of an Accident Involving Radioactive Material.
- j. DoD 5230.16, Nuclear Accident and Incident Public Affairs Guidance (PA).
- k. DoD 6050.5-M, DoD Hazardous Materials Information System Procedures.
- l. DoD 6050.5LR or DoD 6050.5L/DoD Hazardous Materials Information System (Microfiche).
- m. DODI 6050.5, Hazardous Materials Information System.
- n. DoDD 6050.8, Storage and Disposal of non-DoD owned Hazardous or Toxic Materials on DoD Installations.
- o. DoD 6055.5-M, Occupational Health Surveillance Manual.
- p. DODI 6055.8, Occupational Radiation Protection Program.
- q. DoD 7730.12, Notification Procedures for Accidents and Significant Incidents Involving Nuclear Weapons, Reactors and Radioactive Materials.
- r. MIL-STD-105, Sampling Procedures and Tables for Inspection by Attributes.
- s. MIL-STD-129, Military Standard Marking for Shipment and Storage.
- t. MIL-STD-882, System Safety Program Requirements.
- u. AFR 71-4/DLAM 4145.3/TM 38-250/NAVSUP PUB 505/MCO P4030.19, Packaging and Handling, Preparation of Hazardous Materials for Military Air Shipment.

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- v. AFR 127-4, Investigating and Reporting U.S. Air Force Mishaps (Chapter 10).
 - w. AFR 160-132, Control of Radiological Hazards.
 - x. AFR 161-8, Control and Recording Procedures for Occupational Exposure to Ionizing Radiation.
 - AFR 161-16, Radioactive Materials Licenses and Permits.
 - AFR 161-28, Aerospace Medicine, Personnel Dosimetry Program and the USAF Master Radiation Exposure Registry.
 - y. AR 385-11, Licensing and Control of Sources of Ionizing Radiation.
 - z. DLAM 1000.1, DLA Safety and Health Manual.
 - a.a. DLAM 1000.28/AR 40-14, Medical Services Control and Recording Procedures for Exposure to Ionizing Radiation and Radioactive Materials.
 - b.b. DLAR 4145.24/AR 40-14, Control and Recording Procedures Occupational Exposure to Ionizing Radiation.
 - c.c. DLAR 4500.15/AR 55-38/NAVSUPINST 4610.33/AFR 75-18/MCO P4610.19A, Reporting of Transportation Discrepancies in Shipments.

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CHAPTER II RESEARCH, DEVELOPMENT, TEST AND EVALUATION

2-1. RESEARCH AND DEVELOPMENT PHASE

a. The decision to use radioactive material in a commodity shall be based upon the benefits derived in terms of cost effectiveness and safety against that derived from the use of alternate material. Some of the major factors which shall be weighed are the extra costs involved in procurement, quality assurance, record-keeping, training, transportation, facility restoration, environmental consequences, disposal and auxiliary protective equipment encountered during bulk storage, maintenance, and use of radioactive material.

b. Use of radioactive materials shall be kept to the absolute minimum consistent with operational requirements. Nonradioactive substitutes shall be used whenever feasible from a cost effectiveness and operational point of view. Where substitution is not feasible, the least hazardous suitable type and form of radioisotope shall be used.

c. Use and environmental factors shall be considered in designing tests to establish and prove the military usefulness and safety of the item. Drop, shock, vibration, temperature extreme tests, altitude, and accelerated weathering tests such as those established in Title 10, CFR, section 32.101, as appropriate, should be used in the design tests. While the referenced tests are intended for luminous safety devices used in aircraft, most military equipment is subjected to similar extremes during normal use, storage, or transportation.

d. Technical letters, orders, manuals, specifications and other life cycle instructions shall be developed to assure all personnel engaged in the procurement, inspection, transportation, storage, use, maintenance, calibration, control, and disposal are aware of potential hazards, precautions to minimize exposure, operating procedures and their responsibility in the overall life cycle of the radioactive commodity.

e. Proposals, draft instructions, specifications, and needed auxiliary equipment shall be coordinated with affected DoD elements.

2-2. TEST AND EVALUATION

a. The adequacy of design and instructions shall be evaluated by an agency independent of the developer or of potential manufacturers.

b. The results of development tests, operational tests and other tests shall be summarized and forwarded to the appropriate commander of the material and supply command for incorporation into the application for the required license or service authorization.

c. Evaluations of the potential safety and health hazards of each item and system will be conducted throughout all development testing and operational testing, as established by Service or Agency Directives.

2-3. SPECIFICATIONS, PURCHASE DESCRIPTIONS, AND DRAWINGS. Specifications, purchase descriptions, and drawings for radioactive commodities or components shall include:

a. Provisions of MIL-STD-129.

b. Notice to make a potential contractor aware of the possible need for an NRC or State license.

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CHAPTER III LOGISTICS PHASE OF THE LIFE CYCLE CONTROLS

3-1. CONTROL OF RADIOACTIVE MATERIAL. Control of radioactive material is necessary to minimize exposure of personnel. Since man cannot sense ionizing radiation, but must use instruments to detect and measure it, control requires procedures to ensure that those who receive, store, transport, use, and dispose of radioactive commodities recognize them as containing radioactive material and are knowledgeable of the hazards of ionizing radiation and methods of radiation protection. Control is in addition to accountability and may apply to expendable or other nonaccountable property. The degree of control to be exercised during any life cycle phase shall be appropriate for the types and quantities of commodities involved and for the kinds of operations to be conducted.

3-2. LICENSES AND SERVICE AUTHORIZATIONS

a. Pursuant to law, the NRC controls certain specified radioisotopes that are, or may be, incorporated in radioactive commodities. This control is exercised, only within the United States and its possessions, by issuance of licenses, inspections and publication of regulations. Each license contains specific restrictions and limitations. The provisions of each license shall be followed precisely, since violation risks revocation of the right of possession and use.

b. Federal activities and installations are not subject to the registration or licensing requirements of individual states, but are subject to the Nuclear Regulatory Commission rules and regulations as contained in Title 10 Code of Federal Regulations. Development, testing, manufacturing or storing of radioactive materials, commodities or radiation producing devices on DoD real estate must be with the concurrence of the Service controlling the real estate.

c. A Service or Agency authorization, if applicable, shall be obtained for those radioactive materials that are not under the control of a specific NRC license. Control is exercised in much the same manner as for an NRC license. The authorization serves the same purpose as the license, with various single, bi- or tri-Service Agency directives being used as regulations.

d. The Service or Agency having logistical responsibility for the radioactive commodity shall obtain the required license(s) or Service authorization(s) to permit the use of that commodity within the Service or Agency. DoD-wide distribution of a commodity shall be with the concurrence of all Services or Agencies concerned.

e. Documents that are required in making application for licenses or authorizations or amendments thereto shall be coordinated among all affected organizations prior to their submission for license or authorization. Such documents shall include the application, specifications, and control literature.

f. The Service or Agency shall ensure that NRC licensed material and Service or Agency authorized material under its control are not transferred to unauthorized persons or organizations.

g. Applications for licenses or authorizations for use of radioactive materials in commodities are in addition to other prescribed procurement actions and procedures. Applications must be factual and complete to allow comprehensive review. They should not, however, include extraneous information which is not directly applicable to the item for which the application is made. Each initial application shall include:

(1) A complete description of the commodity, e.g., narrative description plus drawings, purchase description, or specifications.

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(2) Procedures by which the DoD Services or Agencies shall assure that quality audits are performed to verify the manufacturer's and the accepting government inspector's testing.

(3) Detailed radiation protection procedures to protect DoD employees and the general public during the complete life of the commodity. The procedures shall include an abbreviated organizational chart of the key agencies and offices and enumeration of their responsibilities with reference to life cycle controls. Pertinent sections of implementing Service or Agency regulations, orders, instructions, manuals, and bulletins shall also be included or referenced (if available at reviewing Agency).

(4) Internal procedures for use within other DoD components authorized to use radioactive commodity. The receiving service shall accept complete responsibility for providing the licensee with information concerning control, investigation, reports to the NRC, and enforcement. The NRC conducts all of its regulatory activities (licensing, compliance inspection, and enforcement) with the organization to which the license is issued.

(5) The total activity of each radioisotope, maximum radiosotopic content of each individual item, chemical form (as a compound); and physical state, of the radioisotope and its containment.

(6) Summary of significant research, development, test, and evaluation effort and results.

(7) Quality assurance procedures for surveillance and verification of quality and integrity of material throughout the item's life cycle.

(8) Control procedures applicable during the commodity life cycle. Special qualifications required of users shall be stated in the procedures. Consideration should be given to adoption of directives as bi- tri-Service or Agency documents. Specific information should be provided for each handling activity, i.e., acceptance inspectors, surveillance inspector, supply (storage) and maintenance personnel, users, transportation and disposal personnel. The instructional material should be prepared so as to separate that required by each of the foregoing groups from each of the others. Life cycle control directives for naturally occurring or accelerator produced radioactive commodities shall be as thorough as those that are required for commodities which have specific license.

(9) Procedures for the distribution and control of the commodity among the Services or Agencies when the commodity is governed by a single license for more than one DoD element.

(10) Summary of controls for maintenance and repair.

h. Procedures for amendment or renewal of licenses are the same as those prescribed for the original license or authorization. Amendment or renewal applications shall include any provisions which are required for initial license applications but which were not submitted previously.

i. Unless the procuring Service or Agency already has developed the required procedural, safety, and environmental documents which must be submitted to obtain the required licenses and Service or Agency authorizations, the need to prepare such documents should be included in any contracts which involve research, development or supply of a radioactive commodity.

3-3 PROCUREMENT OF RADIOACTIVE MATERIALS

a. Insert DoD FAR Supplement (DFARS) 52-223-7000, in applicable contracts.

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CHAPTER IV
PROTECTION OF PERSONNEL HANDLING
RADIOACTIVE COMMODITIES

4-1. GENERAL. Control procedures shall be developed for the protection of DoD personnel handling radioactive commodities (e.g., shipment, inspection, storage, use, maintenance and disposal operations).

a. All organizations whose personnel handle radioactive commodities shall prepare standard operating procedures in coordination with designated medical service and radiation protection personnel. These procedures shall be tailored to the operation being performed and the type of commodities handled.

b. Section 206 of the Energy Reorganization Act of 1974 and related documents must be posted in accordance with 10 CFR 19, 20 and 21 or applicable Service or Agency directives.

c. Preplacement, periodic, and termination medical examinations shall be required of personnel in accordance with DoD 6055.5-M Occupational Health Surveillance Manual and Service or Agency directives.

d. Information about a radiation incident shall be released to the public in accordance with DoD 5230.16 and Service or Agency directives.

e. Controls are included in the technical literature for commodities as to which activities can perform what types of functions and the procedures, training and equipment required to do the work safely. The industrial hygienist, radiation protection officer, or safety officer can provide specific recommendations for the type of operations involved.

4-2. RADIATION EXPOSURE STANDARDS AND POLICY.

a. The whole body radiation exposure limit for occupationally exposed individuals is 5 rem per year and for non-occupationally exposed individuals (general public), the limit is 0.5 rem per year. No individual under 18 years of age or women known to be pregnant shall be occupationally exposed to radiation in excess of that allowed to any individual in the general population. Airborne radioactive concentrations shall not exceed the limits set forth in 10 CFR 20.

b. Personnel exposure to ionizing radiation shall be kept as low as reasonably achievable (ALARA) in accordance with DODI 6055.8. Responsibility for minimizing radiation exposure and controlling radioactive materials rests with commanders and supervisors. This responsibility includes orientation and indoctrination of personnel who are subject to exposure to radiation; implementation of applicable directives and standing operating procedures, and provision for personnel dosimetry, medical examinations, and anticontamination clothing and equipment when required.

c. Contamination limits will be specified by Service or Agency directives.

4-3. TYPES OF HAZARDS. There are two types of radiation hazard, external and internal.

a. External radiation hazard is from ionizing radiation reaching the body from an external source. Some external radiation occurs naturally and is called background radiation. The hazard being considered here is additional to that from background and is caused by radiation from the commodities being handled.

(1) External exposure may be reduced by limiting time of exposure; increasing the distance between personnel and the source of radiation; and increasing the amount of source shielding.

(2) Individual personnel, dosimetric device and area radiation detection, indication, and computation ^(RADAC) device shall be used as needed to verify that the procedures, instructions, and protective equipment are suitable for the hazard encountered.

b. Any radioactive material that enters the body is an internal radiation hazard. Radioactive material can enter the body by being eaten, inhaled or absorbed through the skin. If precautions are not taken, this could occur while handling leaking sources, while repairing broken radioactive commodities, while working in contaminated areas or in airtight storage areas containing leaking gaseous sources, and during accidents. The degree of hazard depends upon the amount and type of radioactive material and in which organs it is deposited.

(1) Control and prevention of contamination are the most effective ways to reduce internal hazards. Prohibit smoking, eating, drinking in areas where radioactive materials are handled. Storage of food, beverages, eating and drinking utensils, and cosmetics in controlled areas shall be prohibited. Wash hands and face upon leaving such areas. If there is a high probability of contamination occurring, other precautions to prevent radioactive materials from entering the body through the nose, mouth or skin include:

(a) Providing monitoring instruments with which the contamination can be located and with which personnel can assure they are free of contamination.

(b) Control dust by eliminating dry sweeping and by filtered ventilation systems. If vacuum cleaners are used they should be equipped with filters capable of removing 99.97 percent of particulates 0.3 micron or larger.

(c) Work areas can be designed to limit the spread of contamination and to facilitate decontamination by using smooth work surfaces with replaceable coverings (e.g., disposable absorbent paper).

(d) Anticontamination clothing such as coveralls, gloves, caps, and shoe covers can be used to protect the skin, hair or personal clothing. Anticontamination clothing should be colored or marked for purposes of control, e.g., monitoring, decontamination, and laundering.

4-4. PERSONNEL TRAINING.

a. Personnel shall be trained as required by paragraph 1-2b. of this document.

b. Each individual shall receive instructions in proper safety and health procedures to be used in the specific operation before being exposed to potential radiation hazards. Additional sources of training in radiation protection are obtained from the following sources:

(1) Department of the Army. Courses are announced in DA Pamphlet 350-10, U.S. Army Formal School Catalog. A separate circular announces training courses conducted by the Surgeon General.

(2) Department of the Air Force. Radiological safety is included in courses taught at Brooks AFB and Sheppard AFB. Additional information is contained in AFM 50-5.

(3) Department of the Navy. U.S. Naval Sea Systems Command Detachment, Radiological Affairs Support Office (RASO), Yorktown, VA 23691.

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c. Emergency and security personnel shall be trained and equipped to cope with the radiological hazards that may be encountered in the performance of their duties.

4-5. RADIOLOGICAL EMERGENCIES.

a. General:

(1) The prime objectives of emergency action are the preservation of life and limb and protection of personnel from the radiation hazards. The secondary consideration should be the confinement of the contamination to the local area of the incident. Although no set rules are available to handle every conceivable incident, the proper use of the guidance furnished below will minimize the danger to personnel and property. If there is reason to believe that personnel may have been contaminated or overexposed, such persons shall be moved to an area where any necessary decontamination and medical assistance can be furnished.

(2) Prior plans shall be made in anticipation of radiological emergencies, in order to minimize exposure of personnel and spread of contamination. Such plans shall be written, coordinated, and rehearsed with all support organizations (fire, police, medical, maintenance, repair, damage control, and public information personnel) and transport carriers or ships to which the material is being tendered for transport. Particular procedures in the plan for any supply and maintenance activity shall depend upon the quantity and types of radioactive commodities that are stocked. Such applicable procedures that are adopted shall be written and distributed to support organizations listed above, supervisors, and foremen.

(3) Fire among or near radioactive commodities might produce airborne radioactive hazards. The smoke cloud and areas beneath it should be avoided by personnel, unless they wear complete anticontamination clothing and protective respiratory equipment. This may require evacuation of a sector of the activity, adjacent organizations, and even contiguous civil populations.

(a) Firefighting operations might disperse radioactive materials to areas which initially were not part of the incident site. The draining of liquids from firefighting operations should be properly managed and, when necessary, avoided by personnel, unless impermeable clothing is worn. Additional measures must be taken as necessary to cope with any resultant hazards.

(b) A perimeter cordon or controlled entry shall be formed as soon as possible to prevent access of unauthorized personnel. Size of perimeter cordon or method of controlled entry shall be dependent upon the radiological or other health hazard associated with the radiological emergency. All personnel leaving the area shall be monitored and decontaminated if necessary. No smoking, eating, or drinking shall be permitted within the perimeter.

(4) When personnel are seriously injured all other considerations (except fire, explosion, atmospheres immediately dangerous to life) shall become secondary until urgent first aid is given and help for rescue (if necessary) and evacuation are summoned. Unless there is a high risk to health, no injured or unconscious individual shall be moved until bleeding has been controlled; breathing is normal; the possibility of fractures has been assessed; and necessary splints applied.

(5) As soon as the immediate emergency is under control, a detailed radiological survey shall be conducted of the affected area(s). Provided that the spread of contamination has been halted, priorities can be assigned to decontamination parties working in contaminated areas. Those areas requiring control of

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exposure time, shall be controlled by a trained radiological monitor. Assistance from outside source(s) may be required.

b. Emergency Procedures:

(1) Emergencies will generally be in the nature of spills, fires, or explosions, by which radioactive materials can be dispersed or released. In case of emergency, the following procedures shall be followed:

(a) In the event of a fire, or an explosion, spill, or hazardous malfunction, notify all persons to evacuate the area at once.

(b) Notify the fire, police, and medical personnel, if appropriate, indicating involvement of radioactive material.

(c) Shut off heating and air-conditioning equipment if airborne contamination is present to prevent the spread of contamination.

(d) Attempt to extinguish fires if radiological hazard is not immediately present.

(e) Notify the Radiation Safety Officer (RSO) and immediate supervisor.

(f) Monitor all persons involved in the emergency or control action.

(g) Following the emergency, monitor the area and determine the protective devices necessary for safe decontamination. The RSO will be available for this determination.

(h) Accidents or incidents involving radioactive material shall be investigated and reported in accordance with applicable service directives.

(2) The installation commander or his representative shall notify local, county, or state authorities of the emergency as deemed necessary.

4-6. EMERGENCY ASSISTANCE.

a. Emergency notifications and requests for assistance will be made in accordance applicable Service or Agency directives.

b. Assistance beyond local capability in responding to an emergency, in the preparation of emergency plans and standing operating procedures may be requested through command channels from:

(1) For Defense Logistics Agency: HQ DA (DASG-PSP), Washington, D.C. 20310. Commercial 202-697-2796, Autovon 227-2796.

(2) For Department of the Army: HQ USAMC, ATTN: AMCSF-P, Alexandria, VA 22333. Commercial 202-274-9340, Autovon 284-9340.

(3) For Department of the Navy: Naval Sea Systems Command (SEA-644), Washington, D.C. 20362. Autovon 222-1223/1252, Commercial 202-692-1223/1252.

(4) For Department of the Air Force: Air Force Operations Center, HQ USAF/XO00A, Washington, D.C. 20330. Commercial 202-697-0495, Autovon 227-0495.

4-7. RECOMMENDED RADIOACTIVE CONTAMINATION ACTION LIMITS AND LEVELS.

Radioactive contamination action limits and levels will be in accordance with the applicable Service or Agency directives. If further assistance is needed contact the Service or Agency's Radiological Protection Safety Officer or see 5-13.e.

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CHAPTER V CONTROL FOR SPECIFIC HANDLING OPERATIONS

5-1. GENERAL. This chapter provides preparers of control documents and of standing operating procedures with DoD guidelines applicable to transportation, storage, maintenance, and disposal of radioactive commodities.

5-2. TRANSPORTATION OF RADIOACTIVE MATERIALS

a. Transportation of radioactive materials shall be in accordance with applicable portions of:

- (1) Title 10, CFR, Part 71 US Nuclear Regulatory Commission Rules and Regulations.
- (2) Title 39, CFR, Part 124.3 US Postal Service Regulations for shipment by mail. (Postal regulations and publications on transport of radioactive material are available at your local post office.)
- (3) Title 49, CFR, Parts 100-199 Department of Transportation Regulations by rail, highway, air or water.
- (4) Title 40, CFR, Parts 122, 124, 263 and 264, Hazardous Waste Management System.
- (5) International Air Transport Association (IATA).
- (6) DoD 4500.32R, MILSTAMP, Chapter 4 and Appendix F.
- (7) United Parcel Service (UPS) Guide for Shipping Hazardous Materials.
- (8) Restricted Articles Tariff 6D.
- (9) AFR 71-4/DLAM 4145.3/TM 38-250/NAVSUP PUB 505/MCO P4030.19.
- (10) International Maritime Organization Technical Instructions.
- (11) International Civil Aviation Organization Technical Instructions.
- (12) International Atomic Energy Agency Regulations.
- (13) MIL-STD-129.

include in 5-5

b. Radioactive commodities may be loaded with other compatible cargo to economize on available equipment space. However, no radioactive materials will be loaded in the same vehicle, compartment or aircraft with shipments of foodstuffs, animals, nor with class A explosives or pyrotechnic materials. Particular care shall be exercised to separate radioactive materials from photographic film and supplies to prevent radiation damage to photosensitive supplies.

c. When an escort is required, those selected to accompany a shipment of radioactive material must be technically qualified and equipped to assure a high degree of safety and security for the shipment.

5-3. SHIPPING ACTIVITY

a. Radioactive commodities shall be consigned only to installations, agencies or individuals that are authorized by an NRC license or Service or Agency authorization to receive them and are known to have a capability for safe handling of the specific commodity. Inventory control point instructions for shipment shall be consistent with this requirement.

b. Shipping documents for radioactive commodities shall meet the requirements of the appropriate documents listed in paragraph 5-2a. Depending upon the individual commodity and the degree of control required, preparation and submission of additional documentation for intransit control purposes might be necessary.

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c. Shipping packages containing radioactive material shall be inspected for damage, leakage, and radiation levels before offering to carrier.

d. The consignor is responsible for assuring that all shipments of radioactive commodities are properly packed, packaged, marked, labeled and certified to reduce the potential radiation risk to personnel.

5-4. PACKAGING

a. When it is necessary to repackage radioactive commodities because of loose issue or damage to the original container, the commodity shall be repackaged in accordance with instructions in the directives or regulations cited in paragraph 5-2 or to conform with the original package. The original container shall be opened and repacked carefully, and shall be monitored. Packaging and repacking operations, including radiation monitoring, shall be carried out in a controlled area in the presence of qualified radiation protection personnel.

b. Containers shall be marked, labeled, and certified in accordance with the applicable documents listed in paragraph 5-2a.

5-5. RADIOACTIVE SHIPMENTS References cited in paragraph 5-2, regulate shipment of radioactive commodities by the U.S. Postal Service and Commercial Carrier originating in the United States. The International Atomic Energy Agency and International Civil Air Organization (ICAO), Technical Instructions for the Safe Transport of Dangerous Goods by Air and International Maritime Organization (IMO) and International Maritime Goods Code are used by foreign governments and overseas air and ocean transport.

5-6. RECEIVING ACTIVITY RESPONSIBILITIES

a. Receiving activities shall establish procedures for the pickup, receipt, monitoring, opening, recording, and reporting radioactive commodity shipments in accordance with Title 10, CFR, section 20.205 and 20.401 or as indicated by Service or Agency directives.

b. As soon as a radioactive commodity is located in an incoming shipment, it shall be monitored with appropriate instruments to determine existence and magnitude of radiation hazards. When the exterior container of radioactive material shows signs of damage or leakage upon removal from the transport vehicle, the vehicle shall be monitored for contamination. A contaminated vehicle should be decontaminated below levels in Title 49 CFR, section 173.443. Where contamination is noted, and when more than one carrier is involved in a particular shipment, the receiving activity shall initiate action to inform previous carriers of potential contamination of transport vehicles and the need for possible radiation surveys.

c. Should a container be leaking, it shall be resealed in the presence of qualified radiation protection personnel. When the cause of leakage has been determined, e.g., packaging deficiency or damage in transit, one of the following forms shall be prepared:

(1) Standard Form (SF) 364, Report of Discrepancy (ROD), (DLAR 4140.55, AR 735-11-2, NAVMAT INST 4355.73A, AFR 400-54, MCO 4430.3F).

(2) SF 361, Discrepancy in Shipment Report (AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15). Radiological safety assistance may be required in preparing these forms to prevent needless exposure of personnel who investigate the deficiency.

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5-7. STORAGE AREAS

a. Open storage, as used in this publication, may also include a shed or covered storage structure with one or more sides fully open. Open storage should only be used when:

(1) The radioactive commodity is a component of an item that is authorized storage under Service or Agency directive or as required by the license or authorization.

(2) The radioactive commodity is a component part of an end item that is designed for outdoor use, e.g., trucks, tanks, and other vehicles. Open storage may necessitate measures to prevent unauthorized entry.

b. Areas used for storage of radioactive commodities shall be kept to the minimum for adequate control.

c. Radioactive commodities shall not be stored in the same warehouse section with explosives, flammable materials, photosensitive items (e.g., photographic film), food products or other incompatible commodities unless provided for and approved by the appropriate Service or Agency.

d. Commodities that contain radioactive gases or radium should be stored in ventilated structures.

5-8. INVENTORY OF COMMODITIES AT SUPPLY FACILITIES AND STOCKING ACTIVITIES

a. The Material Inventory Control point, in cooperation with supply personnel, shall maintain inventory records identifying distribution of radioactive commodities. These records shall be maintained at each supply and stocking facility. The following information shall be included in the record: transaction date; NSN Special Item Control Code (SICC); radioisotope(s); chemical and physical form; original activity (e.g., millicuries, microcuries) per item and date determined; storage location; number of items received and transferred; document number of shipment or receipt; balance of items at conclusion of the transaction; and the license or authorization number.

b. Physical inventory count shall be made at least annually to ensure accuracy of inventory records. Containers shall not be opened for this purpose. Any discrepancies noted will be provided to the inventory organization for further count and adjustment of records, as appropriate.

c. The supply and, where appropriate, the stocking activity shall establish a computer inventory program for radioactive commodities. The program should have the following minimum capabilities:

(1) Printout of all radioactive commodities in storage by NSN, Special Item Control Code (SICC) and name and, if available, quantity, radioisotope, activity, location, and status. The Radiological Protection Officer shall be able to obtain this printout upon request, and distribute to emergency support elements as required.

(2) Wherever computerized stock records permit, retention of all radioactive commodities by NSN should be maintained in the computer for the life cycle of the item in the DoD. Although stock levels are zero, access to specific data are required to process the return and/or ultimate disposal of the item.

(3) Coding to identify unauthorized or obsolete radioactive commodities.

(4) Mechanisms to update or correct any piece of information in the radioactive commodity computer inventory program.

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d. Losses of radioactive materials shall be reported in accordance with instructions in control literature for that commodity, and as required by Service or Agency directives.

5-9. CONTROL AND SURVEYS OF STORAGE/WAREHOUSE AREAS

a. Storage locations for commodities containing radioactive materials shall be posted in accordance with the provisions of 10 CFR 20.203 and 20.204 or as indicated by Service or Agency directives.

b. Radiation protection surveys shall be made at least annually of storage/warehouse radioactive areas or more frequently as directed by Service or Agency directives to determine:

(1) Location and extent of radioactive contamination and radiation levels, appropriateness of boundaries, signs, marking, and protective equipment and procedures.

(2) Corrective action required to protect personnel and property and to conform with regulations.

c. More frequent surveys could be necessary based on the quantity, type, radiation characteristics, stock activity, warehouse operations, and guidance in the technical literature pertaining to the commodity.

d. Results of surveys shall be reported to operating supervisors with recommendations for corrective actions as necessary. Records of surveys shall be maintained by Radiological Protection Officer and shall include results, instruments used, name of surveyor, corrective actions taken, and dates.

e. Closeout radiation surveys shall be made and documented for all storage and maintenance locations when operations involving radioactive commodities have terminated.

5-10. CONTROL AND SURVEY OF RADIATION AREAS

a. Work procedures within these areas shall be regulated to minimize radiation exposures.

b. Frequency of surveys shall be based on radioactive commodity inventory, stock activity, radioactive characteristics of the commodity, and guidance in technical literature that pertains to that commodity but shall be done at least annually. The Radiological Protection Officer shall maintain records of each survey. Records shall show radiation levels that existed at the time of survey in each accessible location, instrument used, and name of surveyor and any corrective actions taken.

5-11. MAINTENANCE

a. Only authorized maintenance shall be performed, and maintenance allocation charts shall be available for review.

b. During maintenance, actual contact with the exposed radioactive material may occur. Consequently, maintenance shall be performed only by installations having the necessary authority (NRC license or service authorization), facilities, trained personnel, radiac and protective equipment, and operating procedures.

c. Prior to completion of the maintenance, radiation markings and safety configurations shall be restored, if applicable.

d. The frequency of radiological surveys shall be determined by the type of use of the work area. Assembly and repair areas shall be surveyed by radiological protection personnel at least quarterly during periods of use.

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5-12. SURVEILLANCE. Surveillance procedures and testing shall be conducted as specified in life cycle control literature and appropriate Service or Agency requirements. The Inventory Control Point will assure accomplishment of required surveillance and will report results to the cognizant NRC license or Service or Agency Authorization Manager.

5-13. MARKING AND WARNINGS

a. Warning signs designating radioactive material areas, radiation areas and high radiation areas shall be placed at each entrance and other locations surrounding such areas clearly identifying the hazard that exists within the area. Signs, either permanent or temporary, should be securely fixed to the barriers, walls, fences, or ropes. Installations or activities located where non-English languages are prevalent should post signs that include a translation in those languages.

b. Storage locations of radioactive materials and commodities shall be marked in accordance with Title 10 CFR part 20 or in accordance with Service or Agency directives.

c. Markings shall be in accordance with the provisions of MIL-STD-129, marking of containers to indicate radioactive material, throughout the DoD supply system, although some label modification may be necessary to conform with conditions that are not covered specifically in that publication.

d. In the case where a high radiation area exists for more than 30 days, the area must be equipped with a control device to energize a conspicuous visible or audible alarm in such manner that the person entering and the area supervisor are made aware of the entry, as required by Title 10, CFR, section 20.203.

e. Additional guidance may be obtained from:

(1) For Defense Logistics Agency: HQ DLA-OW, Alexandria, VA 22314.

(2) For Department of the Army: HQ USAMC ATTN: AMCSF-P, Alexandria, VA 22333-0001, Also see AR 385-30.

(3) For Department of the Navy: Naval Sea Systems Command, Detachment, Radiological Affairs Support Office (RASO), Yorktown, VA 23691.

(4) For Department of the Air Force: HQ AFMSC/SGPA, Brooks AFB, Texas 78235.

5-14. CALIBRATION OF RADIAC SURVEY METERS. Radiac survey meters (health and safety survey meters) shall be calibrated at intervals established in Service or Agency directives.

5-15. DISPOSAL

a. General. Services and Agencies will determine which commodities and spare parts are radioactive. They will not report radioactive commodities to Defense Property Disposal Offices (DPDOs) unless the commodity has been determined to be safe for military and public use. Radioactive commodities must be screened in accordance with Federal Property Management Regulations (FPMR 101-14.1 and FMPR C-24) prior to being reported to the DPDO. If the commodity is controlled by an NRC or Agreement State license, the Disposal Release Order will state that transfer, sale, or donation is limited to licensed recipients. The Services and Agencies will assure that radioactive commodities to be sold, donated, or transferred are marked in accordance with MIL-STD-129 and free of contamination in excess of limits specified in Service or Agency directives. Radioactive commodities will not be physically moved to the DPDO but will be retained until shipping instructions

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are received from the DPDO (DoD 4160.21-M, chapter IV, paragraph D, and chapter VI, paragraphs B 33, B 87, and B 90).

b. Radioactive Waste Products.

(1) Items which cannot be decontaminated or repaired and leaking items shall be disposed of by the Service or Agency as radioactive waste.

(2) Excess or surplus items containing radioactive material shall be disposed of as radioactive waste when licenses or service authorizations require, or when the inventory control point or owning activity determines that any other method of disposal is not in the best interest of the Government.

(3) All radioactive waste shall be disposed of in accordance with Service or Agency directives, 10 CFR 20 and burial site criteria if applicable.

c. Serviceable License Exempt Items Containing Radioactive Materials.

(1) License exempt materials incorporated in major serviceable end items of equipment shall be disposed of by the DPDO in accordance with normal utilization transfer, donation, or sales procedures. License exempt material shall be removed from unserviceable major end items by the Service or Agency and disposed of in accordance with Service or Agency directives.

(2) Unless indicated by Service or Agency directives, license exempt items not incorporated into major end items or equipment shall not be subjected to normal utilization screening procedures in accordance with DoD 4160.21-M, chapter VI, paragraph B 33. These items shall not be physically moved to a DPDO nor will they be made available for donation or reported for sale. Items not utilized by other DoD components or transferred to Federal agencies will be disposed of as radioactive wastes by the Service or Agency in accordance with applicable Service or Agency instructions.

(3) Microwave receiver protector tubes, marine navigation devices containing tritium gas, and any commodity containing radium sources may only be utilized within DoD or disposed of as radioactive wastes in accordance with applicable Service or Agency instructions. Screening for utilization within DoD will be accomplished by the owning Service or Agency. These items shall neither be physically moved to a DPDO nor will they be accepted on the accountable records of a property disposal activity. These items are not authorized for donation or sale.

d. Serviceable Licensed Items Containing Radioactive Materials. These items shall be transferred, donated, or sold only to persons having a proper license to possess them. Only the item manager or owning activity will screen these items for utilization, transfer, and donation. Sales assistance shall be provided by DPDO as required. If the items cannot be utilized, transferred, donated, or sold, they will be disposed of by the Service or Agency as radioactive waste in accordance with Service or Agency directives and Title 10, CFR, Part 20. These items will neither be physically moved to a DPDO nor will they be accepted on the accountable records of a DPDO.

5 December 1968

Medical Service

CONTROL OF RADIOLOGICAL HEALTH HAZARDS

This regulation establishes the USAF Radiological Health Program, and prescribes policies and areas of responsibility concerned with the protection of Air Force personnel from the effects of ionizing radiation during routine, nonemergency conditions.

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1. Terms Explained:

a. Byproduct Material. Any radioactive material (except special nuclear material) which is produced by irradiation of naturally occurring elements in a nuclear reactor, or created by nuclear reactions.

b. Health Physicist. An individual who meets the educational and/or experience qualifications of the military Health Physicist Career Field in the Medical Service, as defined in AFM 36-1.

c. Health Physics Technician. An individual trained in certain technical aspects of health physics, but who does not possess the educational qualifications of a health physicist.

d. Human Use. The internal or external administration of radioactive material (byproduct material or otherwise), or the radiation therefrom, to human beings.

e. Licensee. Any named Air Force organization authorized by the Atomic Energy Commission (AEC) or the USAF Radioiso-

tope Committee to receive, possess, use, or transfer byproduct, source, or special nuclear material.

f. Radiation-Producing Apparatus. Any apparatus which is capable of producing X-rays or nuclear radiation.

g. Radioactive Materials. For the purpose of this regulation, they are defined as naturally occurring radioactive elements and isotopes—such as radium and radon—as well as byproduct, source, and special nuclear material or irradiated materials capable of emitting corpuscular or electromagnetic radiations. Included are radioisotopes and emitters permanently incorporated into adopted or experimental items of equipment.

h. Roentgen Equivalent Man (REM). That quantity of any type ionizing radiation which, when absorbed by man, produces an effect equivalent to the absorption by man of one roentgen of X or gamma radiation (400 KV).

Supersedes AFR 160-132, 15 October 1968. (For summary of revised, deleted, or new material, see signature page.)

OPR: AFMSPA

DISTRIBUTION: B

i. **Source Material.** Any material, except special nuclear material, which contains by weight one-twentieth of one percent (0.05%) or more of uranium, thorium, or any combination thereof. Raw source material is source material which has not been chemically processed in any manner, and source material in the form of residues or tailings. Refined source material is source material other than raw source material.

j. **Special Nuclear Material.** Plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235, or any other material which the Atomic Energy Commission, pursuant to Section 51 of the Atomic Energy Act of 1954, determines to be special nuclear material; or any material artificially enriched by any of the foregoing.

k. **USAF Radioisotope Committee.** A committee established by AFR 23-2.

2. Responsibilities Assigned:

a. **HQ USAF.** The Office of the Surgeon General, USAF, establishes policy and advises on all medical aspects of this program.

b. **Commander, AFLC.** The Commander, AFLC, has operational responsibility for the development and implementation of this program in accordance with this regulation. Upon request, the Commander, AFLC, furnishes technical and professional guidance and consultant service to all Air Force activities.

c. **Commanders.** Commanders at all echelons implement this regulation and insure that:

(1) Personnel comply with accepted health precautions recommended by the Medical Service.

(2) All operating activities comply with Air Force directives covering licensing (AFR 160-124), procurement, storage, handling, accounting, and disposal of radioactive materials.

(3) Personnel and activities involving radioactive materials and/or radiation-producing apparatus are monitored routinely.

d. **Medical Service, USAF.** The Medical Service, USAF, provides commanders at all echelons with advice and recommendations concerning the control of radiological health hazards.

(1) *The Surgeon.* The surgeon of the command is responsible for initiation, supervision, and execution of a command health physics program.

(2) *Director of Base Medical Services.* The director of base medical services is responsible for initiation, supervision, and execution of a base health physics program.

(3) *Health Physicist.* The health physicist of an installation or a unit is directly responsible to the director of base medical services for the conduct of the Health Physics Program for the installation or unit. Where qualified health physics personnel are not available for initial surveys at the installation, requests for consultation and surveys are submitted to HQ AFLC (MCDPE), Wright-Patterson AFB OH 45433.

(4) *Health Physics Technicians.* Where qualified health physicists are not assigned, the health physics monitoring of radioactive materials authorized for use and possession at the installation can be delegated to a health physics technician whose qualifications, in relation to the specific radiological hazards, have been reviewed and approved by the USAF Radioisotope Committee, with application for byproduct materials submitted in accordance with AFR 160-124. Approval of a health physics technician for a specific situation does not constitute certification of the individual for any other duties in the area of health physics. The individual's qualifications require review and approval by the USAF Radioisotope Committee when there is any change in the individual's assignment or an increase in the activity of radioactive materials authorized for use at the installation. Normally, Medical Service personnel are designated as the health physics technicians; however, this does not preclude other qualified Air Force personnel being designated when they possess the necessary qualifications.

3. General Procedures:

a. The Medical Service provides for complete pre-employment and termination physical examinations of individuals who may be routinely exposed to ionizing radiation equal to or greater than one-tenth of the applicable quarterly *Radiation Protection Standards* specified in AFR 161-8. The pre-employment physical examination includes baseline blood examination and occupational history of the individual, with particular regard to past exposure to ionizing radiation and possible heritable defects. In special cases, the following examinations may be indicated: Slit lamp examination of the lens (under cycloplegic unless contraindicated), breath radon level, body fluid analysis, bone marrow studies, and whole body counting. In such

special cases, advice may be obtained by contacting the Surgeon, HQ AFLC.

b. A health physicist of the Medical Service surveys each proposed use of radioactive material, and provides the USAF Radioisotope Committee with a written preliminary hazards evaluation. Proposed uses of radium, source material, and special nuclear material (except radioactive materials used in nuclear weapons systems) are submitted for review by the USAF Radioisotope Committee, AFLC, following the procedures established for byproducts materials in AFR 160-124.

4. Maximum Permissible Exposure Levels:

a. No individual will knowingly expose himself or cause others to be exposed to levels of radiation greater than those delineated in AFR 161-8 and Title 10, Code of Federal Regulations, Part 20 (10 CFR 20), except in cases of extreme emergency or medical X-ray examinations or treatment.

b. Maximum permissible exposure levels shall not be interpreted as allowable exposures, but as limits not to be exceeded.

c. Maximum permissible concentrations in air and water, as prescribed in AFP 160-6-7 or 10 CFR 20 will be observed.

d. Internal exposure levels will comply with the recommendations in AFP 160-6-7 and any revisions or superseding documents.

5. Contamination Levels:

a. Avoid loose contamination on working surfaces and in areas where such contamination may result in personnel contamination.

b. If essential to the mission, personnel may work in contaminated areas if adequate protective control measures are used. Adequacy of these control measures for specific operations is determined by health physics personnel.

c. Permissible fixed contamination limits for laboratory equipment and working surfaces are 900 disintegrations per minute (dpm) per 100 sq. cm. for fixed alpha contamination and 3,000 dpm/100 sq. cm. for fixed beta-gamma contamination.

d. No clothing shall be presented to Air Force laundry facilities (except specially designed laundries capable of handling heavily contaminated garments) for cleaning unless the contamination meets the following limitations:

(1) Alpha contamination at the surface

is less than 450 dpm/100 sq. cm. as detected with an appropriate alpha survey meter.

(2) Beta-gamma contamination does not exceed .5 milliroentgen per hour or 1500 dpm/100 sq. cm. when a thin-walled geiger counter survey meter, such as the AN/PDR-series, is placed as close as possible to the contaminated area.

e. Separate janitorial cleaning equipment must be used exclusively for cleaning of contaminated areas.

6. Contamination Control:

a. Licensee. Licensees maintain complete sets of protective clothing and decontamination kits as designated by a health physicist of the Medical Service or a health physics technician. The number of complete sets to be maintained for emergency purposes depends on the magnitude of the operation. Generally speaking, it is recommended that a minimum of two sets of such complete protective clothing be maintained where contamination in excess of the recommended maximum permissible levels is possible. Agencies provide for containers—painted and labeled in accordance with TO 00-110N-3—for storage of contaminated materials.

b. Personnel:

(1) While working with radioactive materials where hand and shoe contamination is possible, all persons will:

(a) Wash hands thoroughly before eating, smoking, or leaving work.

(b) Wash rubber gloves before removing from hands, unless spillage thereon requires immediate removal.

(c) Use the suitable monitoring equipment to insure that decontamination has been effected.

(d) Use the decontamination kit provided by the using agency as required.

(2) No work with radioactive materials in any chemical or physical form is to be performed by a person having a break in his skin below the wrist, unless gloves of a suitable type, known to be clean on the inside, are worn.

(3) Pipetting by mouth of liquids containing radioactivity is forbidden.

c. Area:

(1) All areas in which there is radiation in excess of the recommended permissible limits will be physically isolated, and appropriate signs posted, to prevent persons from entering the area without being aware of the radiological hazard. If such areas are

contaminated with loose contamination, protective clothing must be worn to enter the area.

(2) Post all radioactively contaminated areas as described in 10 CFR 20.

(3) Remove loose contamination on exposed surfaces as soon as possible. Small amounts of fixed contamination may be unavoidable at times. However, at no time may fixed contamination exceed the recommended permissible levels. After determining that the fixed contamination falls below these maximum values, the area should be given one or two coats of good hard surface coating. The same standards of contamination control apply to tools and equipment, and vigorous controls must be initiated to prevent occurrence of a health hazard or spread of contamination.

(4) All spillage of radioactive materials must be cleaned up promptly. Cleaning responsibilities rest on the person working with the radioactive material involved. A survey is made after cleaning to verify that the cleaning has removed the radioactive materials.

(5) Notify health physicists of the Medical Service of all spills or incidents involving possible contamination.

d. Eating, Smoking, and Drinking. In recognition of the inhalation and ingestion hazard, eating, smoking, and drinking, or preparation of food in a laboratory or room where radioactive materials are present is not permitted.

e. Aircraft. Contaminated aircraft, aircraft parts, and/or equipment are handled in accordance with TO 00-110A-1.

7. Personnel Monitoring. An appropriate personnel monitoring device is worn by each individual who enters a restricted area as defined in AFR 161-11. The primary dosimetric device for personnel monitoring within the Air Force is the film badge. Responsibilities and procedures for conducting the Air Force film badge program are detailed in AFR 161-11.

8. Storage, Transportation, and Handling Within Laboratories:

a. Radioactive materials having an activity greater than 100 microcuries must be securely covered during storage, and kept in an adequately protected and ventilated location.

b. Confine storage and handling of all

radioactive materials within buildings or laboratories to specifically designated areas.

c. All transfer of materials between hoods and storage devices must be done in a manner which will avoid the possibility of spillage or breakage. Double containers are recommended for such manipulations.

d. Perform work with materials susceptible to atmospheric distribution (i.e., dusting, spillage, vaporizing, effervescence of solution, etc.) in exhaust hoods having face velocities of not less than 100 linear feet per minute, or in sealed dry boxes. Avoid discharge of particulate radioactive contamination to the environment by using filters on all exhaust systems, suitable experimental techniques, and an overall good housekeeping program. Carry out all operations with radioactive material and equipment in a manner which will minimize contamination of the air. Contamination of the air at unprotected outlets must not exceed the recommended allowable permissible concentrations stated in AFR 160-6-7 and 10 CFR 20.

e. Suitable instrumentation for each type of radioactive material to be used must be available and in operating condition in the area in which the material is in use. Suitable, in this case, means the instrument which is capable of detecting the minimum allowable levels of contamination, radiation, air hazard, etc., which are established for the materials involved.

f. In the course of some experiments there will be a need for handling of contaminated equipment to conform to the requirements of the experiment. However, do not take such equipment into nonradioactive areas until:

(1) Personnel in such areas are notified of such intent to bring in the material or equipment.

(2) Complete protective measures have been incorporated to assure minimum exposure of personnel and contamination to the area and to insure that any atmospheric distribution of the material resulting from the handling or reworking will be below the maximum permissible concentration value for the airborne material.

g. All areas where radiation materials and equipment are to be stored or used must be clearly marked with the radiation symbol, and the information pertinent to the radioactive material indicated (i.e., elements involved, when known; activity; half life; radiation level at the surface; and date). Such

markings must conform to the labeling instructions in TO 00-110N-3 and 10 CFR 20, and be placed in such a position that there will be no radiological risk or hazard to any personnel while reading it.

h. All radioactive materials are assigned to designated licensees, who are responsible for the safe and proper use of the materials.

i. In order for individuals to use radioactive material, approval must be obtained from the designated licensee. The licensee is responsible for reviewing qualifications of individuals to use the radioisotope, and for assuring that all Air Force directives and applicable AEC directives are complied with. After approval from the designated licensee has been obtained, responsibility for any improper use of the material lies with the individual user.

j. Health physics personnel must be notified if any radioactive material of activity greater than 100 microcuries is planned to be removed from permanent housing and placed into temporary structures for the purpose of experimentation. Such plans must be coordinated with the health physicist.

k. When licensees receive radioactive materials, they:

(1) Record the receipt of the material in the radioactive materials log book, and notify health physics personnel.

(2) In the case of irradiated materials, provide health physics personnel with a record of radioactive material present.

(3) Request that health physics personnel monitor removal of the material from the shipping container.

(4) Request that health physics personnel monitor the outside and inside of the container with a thin-walled Geiger Muller survey meter, and apply random sample smearing techniques, to determine the extent of possible alpha or beta contamination.

9. Protective Clothing:

a. All organizations using radioactive materials maintain complete sets of protective clothing in accordance with recommendations of the Medical Service.

b. The responsible property officer of the operating organization secures the protective clothing from base supply, and issues the clothing to authorized personnel.

c. Personnel working in laboratories using radioactive materials necessitating use of protective clothing must use change rooms. Do not wear protective clothing into a clean area without authorization from health physics personnel.

d. Laundering of protective clothing is the responsibility of the organization using the clothing. Do not present clothing to Air Force laundry facilities (except specially designated laundries capable of handling heavily contaminated garments) for cleaning unless the contamination is below the limits indicated in paragraph 5d. If the activity is higher than the maximum permissible level, decontamination must be performed to decrease the activity to the indicated limits.

e. A certificate of the degree of contamination must be attached to the clothing laundry list when the clothing is taken to the laundry facilities. Protective clothing is not accepted for cleaning if the certificate is not completed and signed by a health physicist or health physics technician. An example of this certificate is shown as figure 1.

10. Radioactive Waste Disposal:

a. Licensees producing radioactive wastes insure that requirements pertinent to the safe disposal of radioactive waste and disposal limits as prescribed by 10 CFR 20 are observed.

b. Limit the volume of radioactive wastes, and furnish health physics personnel in-

CERTIFICATE

This certifies that all protective clothing contained herewith has been monitored and was found to be below maximum permissible levels of contamination as specified in AFR 160-132, paragraph 5d.

Date

Signature

Figure 1. Sample Certificate.

Information concerning the nature of the waste being collected for subsequent storage (i.e., radioactive material involved, half life, activity in the waste, date, radiation level at the surface or the container, and the instrument used in determining the surface radiation level).

c. Where it is necessary to store radioactive waste in a working area, use shielding to reduce the dose rate from the radioactive waste to maximum permissible recommended levels.

d. Keep short-lived materials separately from those of long life. Keep materials which produce gases by decay separately from other materials. Describe the nature of the material being disposed of on a tag, and attach it to the container.

e. Keep radioactive waste volume to a minimum.

f. Individual organizations process and package radioactive wastes generated by their facilities in accordance with recommendations of health physics personnel.

g. Base civil engineers paint and identify containers in accordance with TO 00-110N-2, transport the waste after it is properly packaged, and provide for safe storage and ultimate disposal of the waste.

h. Radioactive waste must be packaged to meet Department of Transportation (DOT) shipping specifications when materials are shipped off base for ultimate disposal.

i. Radioactive materials must not be buried on Air Force installations unless approval has been obtained from the USAF Radioisotope Committee, AFLC (MCDPE), Wright-Patterson AFB OH 45433.

j. If it is necessary to repackage radioactive waste after it has been placed in the local storage area, the base installations engineer is responsible for providing personnel and equipment necessary to accomplish such action. Individual organizations using radioactive materials provide the base installations engineer with protective clothing so that he may equip a field team to meet such an emergency situation. A health physicist monitors the operation.

k. Liquid wastes may be discharged into sanitary sewers if the specific activity of the liquid does not exceed limits prescribed by 10 CFR 20. Keep a complete log of wastes discharged. Entries in the log include activity/unit volume, isotopic identity, total volume discharged, date, location, and the

signature of the individual authorizing discharge of the waste.

l. Gaseous and airborne radioactive materials may be discharged to the atmosphere if dilution is sufficient to reduce the activity to levels prescribed by 10 CFR 20 when the material leaves the controlled system.

11. Emergency Procedures:

a. For minor spills involving no radiation hazard to personnel:

(1) Immediately notify all other persons in the room.

(2) Permit only the minimum number of persons in the area necessary to deal with the spill.

(3) Confine the spill immediately:

(a) *Liquid spills.* Don protective gloves. Drop absorbent paper on spill.

(b) *Dry spills.* Don protective gloves. Dampen the contaminated surface, taking care not to spread the contamination. (Generally, water may be used; however, use oil where chemical reaction with the water would generate an air contaminant.)

(4) Notify a health physicist as soon as possible. Where no health physicist is available, notify the director of base medical services.

(5) Decontaminate.

(6) Monitor all persons involved in the spill and cleaning.

(7) Permit no person to resume work in the area until a survey is made and approval of the health physicist or director of base medical services is secured.

b. For major spills involving radiation hazard to personnel:

(1) Shut down internal ventilation systems.

(2) Notify all persons not involved in the spill to vacate the room at once.

(3) If the spill is liquid, and the hands are protected, right the container.

(4) If the spill is on the skin, flush thoroughly with water containing a detergent, and decontaminate.

(5) If the spill is on the clothing, discard outer or protective clothing at once.

(6) Vacate the room.

(7) Notify a health physicist or the director of base medical services as soon as possible.

(8) Take immediate steps to decontaminate personnel involved, as necessary.

(9) Decontaminate the area (personnel

involved in decontamination must be adequately protected).

(10) Monitor all persons involved in the spill and cleaning to determine adequacy of personnel decontamination.

(11) Permit no person to resume work in the area until a survey is made and approval of a health physicist or the director of base medical services is secured.

c. For accidents involving radioactive dusts, mists, fumes, organic vapors, and gases:

(1) Shut down internal ventilation systems.

(2) Notify all persons to hold breath and vacate the room immediately.

(3) Notify a health physicist or the director of base medical services at once.

(4) Ascertain that all doors giving access to the room are closed, and post conspicuous warning or guards to prevent accidental opening of doors.

(5) Report to the director of base medical services at once all known or suspected inhalations of radioactive materials.

(6) Evaluate the hazard and the suitable safety devices required for safe reentry.

(7) Determine the cause of contamination, and rectify the condition.

(8) Decontaminate the area.

(9) Perform air survey of the area before permitting work to be resumed.

(10) Monitor all personnel involved in the accident and cleanup for contamination.

d. For injuries to personnel involving radiation hazards:

(1) Immediately wash minor wounds under running water, while spreading the edges of the wound.

(2) Immediately report all radiation accidents involving personnel (wounds, over-exposures, ingestion, inhalation) to the director of base medical services.

(3) Permit no person involved in a radiation injury to return to work until the approval of the director of base medical services is secured.

e. For fires or other major emergencies:

(1) Shut down ventilation systems.

(2) Notify all other persons in the room and building at once.

(3) Notify the fire department and other local safety personnel.

(4) Notify a health physicist or the director of base medical services.

(5) Attempt to put out fires if radiation hazard is not immediately present.

(6) Govern firefighting or other emergency activities by the demands of the situation and/or advice of the health physicist.

(7) Following the emergency, monitor the area and determine the protective devices necessary for safe decontamination.

(8) Decontaminate.

(9) Permit no person to resume work without approval of a health physicist or the director of base medical services.

(10) Monitor all persons involved in combating the emergency.

12. Atomic Energy Commission Reporting Requirements:

a. It is mandatory that each licensee reports all actions involving the above-indicated emergency procedures, and theft or loss of radioactive material, in accordance with the following applicable AEC instructions:

(1) Report by telephone or telegraph to the manager of the nearest AEC Regional Compliance Office (see attachment 1), immediately after its occurrence becomes known to the licensee, any loss or theft of licensed material in such quantities and under such circumstances that it appears to the licensee that a substantial hazard may result to persons in unrestricted areas.

(2) Notifications and reports of incidents are as follows:

(a) *Immediate Notification.* Each licensee immediately notifies the manager of the nearest AEC Regional Compliance Office (see attachment 1) by telephone or telegraph of any incident involving licensed material possessed by him and which may have caused or threatens to cause:

1. Exposure of any individual to 25 rems or more of radiation, including any radioactive material taken into the body; or

2. The release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 5000 times the limits specified for such materials in appendix B, table 2, 10 CFR 20; or

3. A loss of one workweek or more of the operation of any facilities affected; or

4. Damage to property in excess of \$100,000.

(b) *Twenty-four-hour Notification.* Each licensee within 24 hours notifies the manager of the nearest AEC Regional Compliance Office (see attachment 1), by telephone or telegraph, of any incident involv-

ing licensed material possessed by him and which may have caused or threatens to cause:

1. Exposure of any individual to 5 rems or more of radiation, including any radioactive material taken into the body; or
2. The release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 500 times the limits specified for such materials in appendix B, table 2, of 10 CFR 20; or
3. A loss of one day or more of the operation of any facilities affected; or
4. Damage to property in excess of \$1,000.

(c) *Thirty-day Reports.* Each licensee reports in writing within 30 days to the Director, Division of Compliance, United States Atomic Energy Commission, Wash DC 20545, each incident involving licensed material possessed by him which appears to have resulted in the exposure of an individual to radiation or to concentrations of radioactive material, or to have resulted in levels of radiation, or concentrations of radioactive material, in excess of any applicable limits set forth in these regulations or in the licensee's license. Each report required under this paragraph shall describe the nature of the incident, the extent of exposure of persons to radiation or to radioactive material, the levels of radiation and concentrations of radioactive material involved, the cause of the incident, and corrective steps taken or planned to assure against a recurrence of the incident. A copy of each report is transmitted to the manager of the nearest AEC Regional Compliance Office listed in attachment 1.

(3) A copy of each report submitted under the above requirements is transmitted simultaneously to AFLC (MCDPE), Wright-Patterson AFB OH 45433.

(4) Prepare reports concerned with theft or loss and incidents involving radium and/or its compounds in accordance with this paragraph, and send only to AFLC (MCDPE), Wright-Patterson AFB OH 45433.

NOTE: The above reports are exempt from assignment of a reports control symbol by authority of paragraph 6b(2), AFR 300-5.

13. **Film Badge Overexposure Investigating Instructions.** Film badge overexposure investigations are conducted in accordance with AFR 161-11.

14. **Licensing and Possession of Radioactive Materials.** Requests for authorization to procure, use, or possess radioactive materials are directed to HQ AFLC, in accordance with AFR 160-124.

15. **Transportation of Radioactive Materials:**

a. Off base shipments and transfers of radioactive materials must conform to DOT regulations.

b. On base shipments and transfers of radioactive materials must conform to DOT regulations unless otherwise specified by a health physicist.

c. The licensee records shipment and transfers of all radioactive materials except weapons.

d. All assignments of radioactive materials are to be from licensee to licensee, and not from an individual to an organization or installation.

e. If breakage of containers, wreck, fire, or unusual delay involving all cargoes of radioactive material (except weapons) occurs, the car, vehicle, or aircraft, as the case may be, and any loose radioactive material, must be isolated as far as possible from danger of human contact, and no persons must be allowed to remain close to the car, vehicle, aircraft, or contents needlessly until qualified persons are available to supervise handling.

16. **Final Instructions.** In all cases where doubt exists as to procedures, handling, and disposition of radioactive materials, direct inquiries (mode of communication consistent with the problem) to AFLC (MCDPE), Wright-Patterson AFB OH 45433.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

J. P. McCONNELL, *General, USAF*
Chief of Staff

JOHN F. RASH, *Colonel, USAF*
Director of Administrative Services

1 Attachment
AEC Regional Compliance Offices.

Summary of Revised, Deleted, or Added Material

This regulation updates terminology in accordance with recent revisions of Title 10, Atomic Energy, Code of Federal Regulations (para 1) and deletes material currently contained in AFRs 160-24, 161-8, and 161-11, and 00-110N series technical orders.

20 January 1984

Safety

INVESTIGATING AND REPORTING US AIR FORCE MISHAPS

This regulation establishes the general program for investigating and reporting all US Air Force mishaps. (For F-16 aircraft only, AFR 127-18 establishes the format and guidance for the message portion of F-16 flight mishaps.) It explains how to do the various reports needed to provide commanders, managers, and safety staffs at all levels with uniform, accurate, and complete mishap data. The regulation outlines restrictions pertaining to the release and dissemination of information about mishaps and mishap investigations to DOD and non-DOD agencies. It applies to persons who investigate and report Air Force mishaps. It implements DODIs 6055.7, 16 December 1981, and 7730.12, 1 August 1976. This publication is affected by the Privacy Act of 1974. Each form that is subject to the provisions of AFR 12-35 and required by this publication contains a Privacy Act Statement, either incorporated in the body of the document or in a separate statement accompanying each such document. Major Command (MAJCOM) supplements must have prior HQ AFISC/SEP approval.

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Chapter 10

NUCLEAR ACCIDENT, INCIDENT, AND DEFICIENCY (AID) REPORTING

10-1. General Information:

a. Nuclear accident, incident, or deficiency (AID) reports are required for those mishaps, events, or conditions which degrade or could degrade nuclear or radiological safety.

b. Responsibility to submit nuclear AID reports is not limited to those units or agencies which have nuclear or nuclear-related missions. Nonnuclear units using nuclear safety certified equipment listed in TO 00-110N-16 have a responsibility to report nuclear safety related deficiencies. Similarly, units working with radioactive sources and materials under license by the Nuclear Regulatory Commission or USAF permit under AFR 161-16 also have reporting responsibilities.

c. The requirement for the reporting of nuclear accidents and significant incidents is established by DOD Directive 7730.12. These requirements are implemented through JCS Pub 6, Vol II, Part 2, Chapter 4 or Vol V, Part 2, Chapter 3 and this regulation.

d. The requirement for nuclear safety deficiency reporting was established to support the policies and objectives of AFR 122-1, The Air Force Nuclear Surety Program. Safety deficiency reports support Air Force efforts to maintain a record of zero accidental or unauthorized nuclear yields and to minimize the effects of nuclear accidents and significant incidents if they should occur. Safety deficiency reports bring problems to the immediate attention of agencies which can evaluate and correct them if necessary.

10-2. Terms Explained:

a. **Nuclear Weapon System Mishap.** A mishap reported as either a NUCFLASH, BROKEN ARROW, BENT SPEAR, or DULL SWORD involving nuclear weapons, nuclear components, nuclear-capable delivery systems, nuclear safety certified equipment listed in TO 00-110N-16, Nuclear Ordnance Commodity Management (NOCM) items under Federal Stock Class 1100, nuclear safety certified computer software/firmware/hardware, codes and code materials, nuclear logistics movements, and nuclear safety rules and procedures associated with the security, operations, maintenance, storage, and transportation of nuclear weapons.

b. **Nuclear Reactor/Radioisotope Power System Mishap.** A mishap reported as a FADED GIANT involving a nuclear reactor or radioisotope power system with its associated equipment, instruments, operators, materials, and facilities for which AFR 122-15 applies.

c. **Minor Radioactive Source Mishap.** A mishap reported as a FADED GIANT involving radioactive material, sources, or radioisotope devices generally used in non-weapon applications. Minor radioactive sources for space and missile use are those for which AFR 122-16 applies. Also included in this category are applications licensed by the Nuclear Regulatory Commission or Air Force permit.

d. **NUCFLASH.** An accidental, unauthorized, or any other unexplained incident which involves launching, firing, or use by US forces or US-supported allied forces, of a nuclear-capable weapon(s) system which could create the risk of out-break of war, including:

(1) Detonation of a nuclear weapon.

(2) Launch of a nuclear-armed or nuclear-capable missile.

(3) Unauthorized flight or unauthorized deviation from an approved flight plan by a nuclear-armed or nuclear-capable aircraft with the capability to penetrate the airspace of the USSR or other Warsaw Pact countries.

e. **BROKEN ARROW.** An accident or unexpected event, except as modified by paragraph 10-3b, involving nuclear weapons, warheads, or nuclear components resulting in any of the following:

(1) Nuclear detonation of a weapon.

(2) Nonnuclear detonation or burning of a weapon.

(3) Radioactive contamination.

(4) Loss, theft, seizure, or destruction of a nuclear weapon, warhead, or nuclear component. Loss includes, but is not limited to, intention jettisoning using approved Air Force procedures or inadvertent release of nuclear weapons or nuclear components.

(5) Public hazard; actual or implied.

f. **BENT SPEAR.** A significant incident or unexpected event, except as modified by paragraph 10-3c, involving nuclear weapons, warheads, or nuclear components which does not fall in the BROKEN ARROW category but:

(1) Damages a nuclear weapon or nuclear component to the extent that major rework, complete replacement, or examination or recertification by the design agency is required.

(2) Requires immediate action in the interest of safety or nuclear weapon security (e.g., render-safe procedures), or which may result in adverse national or international public reaction or premature release of information (e.g., a bonafide attempted theft or seizure of a nuclear weapon).

(3) Has such potential consequence as to warrant the interest or action of officials or agencies outside the Air Force.

g. **DULL SWORD.** A nuclear safety deficiency; i.e., a situation, event, or condition not reportable as a BROKEN ARROW or BENT SPEAR which could or does degrade nuclear safety. Report Dull Swords for the following:

(1) Damage, malfunction, or failure of a war reserve (WR) nuclear weapon or warhead. Excluded are conditions due to wear that are repairable by authorized painting or hardware or seal replacement.

(2) Exposure of weapon or warhead to unusual or severe environments (flood, earthquake, lightning, and so forth).

(3) Unplanned, unexpected, or inadvertent release, launch, or loss of any nuclear training device, or nonnuclear store on any nuclear capable station of a nuclear

apable combat delivery vehicle.

(4) Actual or suspected loss or compromise of codes, code materials, software, or equipment designated as critical components according to AFR 122-4.

(5) Damage, malfunction, or failure of nuclear capable combat delivery vehicle suspension, release, launch, operation, arming, monitoring and control systems.

(6) Nuclear Certified Ground Support Equipment Including Common Commercial Vehicles and Munitions Handling Equipment.

(a) Do not report Dull Swords on:

1. Deficiencies noted during receipt or acceptance inspections.

2. Deficiencies noted during routine maintenance inspections where corrective action procedures are provided in existing technical orders.

(b) Report Dull Swords on:

1. Deficiencies that occur while equipment is in use for nuclear or nonnuclear operations.

2. Deficiencies for which corrective action procedures are not provided in technical orders.

3. Weld cracks regardless of the existence of corrective action procedures or when discovered.

(7) Nuclear Certified Common Commercial Vehicles. Includes pick-up trucks, cargo trucks, flatbed trucks, tractor trucks (fifth wheel), tow tractors (farm and warehouse) and forklifts. These are vehicles that may be used in nuclear or nonnuclear operations or both.

(a) Do not report Dull Swords on:

1. Traffic accidents not involving nuclear weapons and not caused by a vehicle deficiency.

2. Dents, rust, and corrosion that do not affect the vehicle's capability to steer, stop, tow, and hold in park a tow vehicle/trailer combination or to lift, transport, or restrain nuclear cargo on the vehicle's cargo deck.

3. Deficiency in electrical accessories including lights, washer and wipers.

(b) Tow vehicles. Report Dull Swords on the following deficiencies that occur during nuclear or nonnuclear operations involving a vehicle certified for towing:

1. Brake system deficiencies that affect the tow vehicle's capability to safely stop or to hold in park the tow vehicle/trailer combination.

2. Deficiencies, including weld cracks, in the structural members through which the towing/braking force is transferred to the trailer.

3. Deficiencies that affect steering or stability.

4. Weld cracks in pintle hook mounting plate and support brackets. Deficiencies in pintle hook or fifth wheel.

(c) Transportation Vehicle. Report Dull Swords on the following deficiencies that occur during nuclear or nonnuclear operations involving a vehicle certified for transporting nuclear weapons on its cargo deck:

1. Brake system deficiencies that affect the transport vehicle's capability to safely stop or to hold itself in park.

2. Deficiencies, including weld cracks, that af-

fect the structural integrity of the vehicle to transport or to restrain the nuclear cargo.

3. Deficiencies that affect steering or stability.

4. Deficiencies in tiedown points and tiedown patterns.

(d) Forklifts. Report Dull Swords on the following deficiencies that occur during nuclear or nonnuclear operations involving forklift trucks certified for lifting/handling nuclear weapons:

1. Deficiencies in the hydraulic, mechanical, and structural components of the lifting system that results in nonresponsive operation or uncontrolled lowering of cargo.

2. Brake system deficiencies.

3. Deficiencies that affect steering or stability.

4. Deficiencies that affect the restraint of nuclear cargo on the lift tines.

(8) Frequent occurrences of a normally nonreportable deficiency which you believe has a potential to cause an accident involving nuclear weapons.

(9) Deficiency, anomaly, or failure involving nuclear safety-certified computer software.

(10) Tampering, attempted break-in, or other unusual security-related events at nuclear weapon operational, maintenance or storage facilities.

(11) Security deficiencies observed during logistic movement of nuclear weapons. Security deficiencies are not reported when only nuclear-related cargo (e.g., limited life components) are involved. Submit DULL SWORD (security deficiency) reports for logistic movements of nuclear weapons when any one of the following deficiencies is observed (see paragraph 10-5d):

(a) Senior on-scene security force supervisor did not immediately meet the crew courier according to AFR 207-3.

(b) Action was not initiated to establish a temporary restricted area (if required) around the aircraft immediately after engine shutdown according to AFR 207-3.

(c) During periods of darkness, lighting is not provided according to AFRs 207-1 and 207-3.

(d) A single entry control point was not established and manned according to AFR 207-3.

(e) Two means of alerting a communications control center are not provided according to AFR 207-1.

(f) Tampering or attempted break-in of a nuclear laden aircraft or an aircraft that has been sanitized in preparation for nuclear loading.

(12) Safety-related mishap involving a nuclear loaded cargo or weapons system that is reportable under other chapters of this regulation (see paragraph 4-4).

(13) Damage, malfunction, or failure of nuclear weapon system equipment which could permit the unauthorized or inadvertent prearming, arming, launching, or releasing of nuclear weapons.

(14) Procedural problems or violations involving Nuclear Weapon System Safety Rules (see AFR 122-series regulations) or technical orders where safety can be enhanced. For example, instances of improper torquing,

packaging, tie-down procedures, interpretation of technical data, etc., which result from lack of knowledge or misinterpretation should be reported. Procedural violations caused by inadvertent actions need not be reported unless the unit believes nuclear surety can be enhanced by rendering a report (e.g., stepping over a no-lone zone area line, dropping a tool on a weapon and no damage occurs, etc.).

(15) Any problem or situation which may affect nuclear safety or which has not been solved through other reporting directives. This category is based on the judgment of the commander.

h. FADED GIANT. A nuclear reactor/radioisotope power system or minor radioactive source accident or incident.

(1) An accident is an event involving a nuclear reactor/radioisotope power system or minor radioactive source resulting in any of the following:

(a) An uncontrolled nuclear reactor criticality resulting in damage to the reactor core or release of fission products from the reactor core to the atmosphere or surrounding environment.

(b) A loss of control of radioactive materiel which presents a hazard to life, health, or property. This includes loss of control which may result in any person in an unrestricted area exceeding the limits for exposure to ionizing radiation as stated in Title 10 US Code of Federal Regulations, Part 20 (10 CFR 20) Section 20.105.

(c) Any unexpected event involving radioactive materials or radiation exposure which is serious enough to warrant the interest or action of officials or agencies outside the Air Force. (See JCS Pub 6, Vol II, Part 2, Chapter 4.) This category includes: events having domestic or international implications, those which may cause inquiries by the public or press, and those requiring immediate notification to the Nuclear Regulatory Commission under 10 CFR 20 Section 20.403(a) and AFR 160-132, para 12a(2)(a).

(2) An incident is an event involving a nuclear reactor/radioisotope power system or minor radioactive source resulting in any of the following:

(a) Any event requiring 24 hour notification to the Nuclear Regulatory Commission under 10 CFR 20 Section 20.403(b) and AFR 160-132.

(b) An inadvertent rupture of a radioisotope power system containment capsule or a reactor fuel element which does not qualify as an accident.

(c) Acts of nature or other incidents which pose a serious threat to the nuclear system, e.g., fire, flood, explosion, etc.

(d) A nuclear reactor/radioisotope power system or minor radioactive source event which may result in adverse public reaction. This includes possible premature release of information.

10-3. Policies:

a. Events defined as NUCFLASH, BROKEN ARROW, BENT SPEAR, DULL SWORD, and FADED GIANT must be reported.

b. If an event which would be classified as BROKEN

ARROW involves only radioactive limited life components, then the mishap is reported as a BENT SPEAR.

c. The classification BENT SPEAR is not used to report minor incidents noted during routine maintenance (pressure leaks, crushed cables, and so forth) even though the weapon or component must be returned to the design agency for repair. These minor incidents are reported as DULL SWORDS.

d. Some types of safety-related deficiencies will normally be reported under other directives as indicated below. Maximum use should be made of these reporting systems and DULL SWORD reports will not normally be required.

(1) AFTO Form 22 reporting under TO 00-5-1 applies to deficiencies involving procedures.

(2) Safety problems involving only materiel deficiencies are reported under TO 00-35D-54. To avoid multiple reporting, deficiencies involving nuclear safety may be submitted as combined Dull Sword-MDR reports and the item manager shown in TO 00-35D-54 Appendix V is added to the addressee list (table 10-2).

e. Mishaps involving nuclear power systems or minor radioactive sources are also reportable under Title 10 US Code of Federal Regulations, Chapter 20 and AFR 160-132. When FADED GIANT criteria are met, separate reports under this regulation are required.

f. Problems involving people under Personnel Reliability Program (PRP) are reported under AFR 35-99 or AFR 40-925 and need not be reported as DULL SWORDS.

10-4. Preparing Nuclear AID Reports:

a. OPREP-3 reports are prepared as prescribed by JCS Pub 6, Vol II and V. FADED GIANT incidents as defined in paragraph 10-2h(2), are reported as OPREP-3 BEE-LINE FADED GIANT.

b. The format for all other nuclear AID reports is in figure 10-1. The subject line identifies the type of report and contains a unit report number modified to include a year designation. The subject line of progress, supplemental, and replies to the reporting unit should include this unit report number. Include items 1, 2, 3, and 4 in supplemental or progress reports. For these items, a "no change" designation may be used to avoid unnecessary repetition of information. Progress and supplemental reports should be numbered.

c. Progress reports for nuclear accidents are sent until all on site investigations are complete.

10-5. Reporting Schedules and Addresses for Nuclear AID Reports:

a. Report nuclear accidents and incidents according to the schedule in table 10-1.

b. Send nuclear AID reports to the addressees in table 10-2.

c. Report nuclear safety deficiencies (Dull Swords) according to the schedule in table 10-3.

d. Aircrews submitting Dull Sword reports on security deficiencies during nuclear air logistics movements in accordance with paragraph 10-2g(11) criteria are to use the

report format at figure 10-1 with the following instructions.

(1) Addressees: HQ USAF Wash DC/IGF/IGS; Dir of Nuclear Surety Kirtland AFB NM/SNA; AFOSP Kirtland AFB NM/SPO; Dir of Sp Wpns Kelly AFB TX/SWPT; MAJCOM (owning security force)/SP; MAJCOM (host base)/SP; HQ MAC Scott AFB IL/GF/SP/DO; MAC Numbered Air Force/CC/DO/SE; MAC Operating Wing/CC/DO/SE; MAC Command Center Scott AFB IL.

(2) Subject: DULL SWORD (SECURITY DEFICIENCY).

(3) Items 2, 3, 4, 5, 7, 10, 11, 12: Not applicable.

(4) Item 6: Narrative description including all circumstances prior to, during, and immediately after the incident (for example, scheduled/actual time of arrival, time of inflight notification, dates and times that security was confirmed by crew, operating unit, and MAC numbered air force, etc.). If deficiencies are corrected on the spot, so state in the report along with the time required to correct the deficiency.

(5) Item 8: Action taken by aircrew to remedy the deficiency.

(6) Item 13: Name, rank, title/position, organization, and phone number of person submitting report.

0-6. AF Form 711 Series Reports. Formal AF Form 711 series reports are required for nuclear accidents classified as NUCFLASH, BROKEN ARROW, and FADED FLANT. Formal AF Form 711 series reports for significant accidents are not required unless directed by Director of Nuclear Surety, AFISC/SN. The routing of formal reports is given in Table 12-5.

0-7. Preparing AF Form 711f, Nuclear Accident/Incident Report:

a. Item 1. Materiel Involved:

(1) Item 1a. War Reserve Bomb, Warhead, or Component. Self-explanatory.

(2) Item 1b. Training Items. Self-explanatory.

(3) Item 1c. Test and Handling Equipment. Self-explanatory.

(4) Item 1d. Carrier. State whether aircraft, missile, or vehicle, and type, model, series, and serial number of carrier.

b. Item 2. Type of Operation. Check the box that reflects the actual operation at the time of the event. If other, describe fully.

c. Item 3. Damage. Describe the damage to the item re-

ported. Photographs of the damage or damaged area are useful in analysis of the event.

d. Item 4. Nuclear Materiel Information:

(1) Type and Extent of Contamination, Measured Intensities, Rate of Decay, Decontamination Procedures Established. Break this portion of the report into subparagraphs so that separate factors may be discussed individually.

(2) Disposition of Nuclear Materiel Involved. State whether the materiel is being shipped or disposed of, or what other action has been taken or planned.

e. Item 5. Aircraft Information. Change heading to read aircraft, missile, or system information, as appropriate. Give system configuration at the time of the event. Include the position of weapon related switches in aircraft systems.

f. Item 6. Miscellaneous Information:

(1) Fire Occurred? Check "Yes" or "No." If "Yes," given the type of operation being conducted at the time of the fire. (Examples: loading, maintenance being performed, and so forth.)

(2) High Explosive (HE) detonation? Check "Yes" or "No." If "Yes," give the type of operation being conducted at the time of explosion.

(3) Was Emergency Unsatisfactory Materiel Report (EUMR) submitted? This block pertains to Category I materiel deficiency reports (MDR) under TO-00-35D-54. Check "Yes" or "No." If "Yes," on what components?

(4) Were TOs Complied With? Check "Yes" or "No." If "No," give technical order number, title, date, page, and step number.

g. Item 7. Factors Related to the Accident. These include findings and causes as discussed in paragraphs 3-11, 3-12, and 3-13.

h. Item 8. Comments. Use this paragraph for comments on the accident or incident. These comments should be other than those related in Item 11 of the basic AF Form 711. Immediate, intermediate, continuing, or long-range corrective actions, and "get well" date should be included in Item 11. Show the status of the individuals involved under the Personnel Reliability Program. Also, state whether the position occupied is critical or controlled.

i. Continuation pages may be used if needed to provide complete information.

10-8. Submitted AF Form 711gB, Life Sciences Report, on Nuclear Accidents and Incidents. The requirement for submitting AF Form 711gB for a nuclear accident or incident is stated in paragraph 11-3b(1). Instructions for preparing this form are given in paragraph 11-4d.

Format and instructions for completing a progress or supplemental, or final report on nuclear weapon or nuclear power system/minor radioactive source mishaps and for preliminary, supplemental, and one-time reports on nuclear safety deficiencies.

FROM: (Originator)

TO: (See table 10-2)

(Security Classification)

(NOTE: For classified reports, see paragraph 4-10a(1)).

FOR OFFICIAL USE ONLY. THIS IS A LIMITED USE REPORT. SEE AFR 127-4 FOR RESTRICTIONS.

SUBJECT: Preliminary, Progress, Supplemental, Final, or One-Time Report, BROKEN ARROW, BENT SPEAR, FADED GIANT, DULL SWORD, (as appropriate) (include unit-assigned sequence number)

(Examples: SUBJECT: PROGRESS REPORT 1, BROKEN ARROW, 11 SMW 74-1
SUBJECT: PRELIMINARY DULL SWORD, 11 SMW 74-1)

1. Date, time, and location of AID.
2. Quantity and Type. Quantity and identification (according to TO 11N-4-1) of the nuclear bomb, warhead, or type of nuclear component or material; to include end item nuclear power system or minor radioactive source involved. Give serial number(s) and whether War Reserve or training item is involved.
3. Quantity and type of aircraft, missile, (include weapon system identification), test equipment, handling equipment, nuclear power system, or minor radioactive source involved and serial number of each. For nuclear safety-certified equipment, include (1) National Stock Number, (2) part number, and (3) manufacturer's name; refer to TO 00-110N-16.
4. Organization, base and command possessing the bomb, warhead, device, or radioisotope at time of occurrence.
5. Type of operation being performed at time of discovery or occurrence. Include TO and paragraph number being used and aircraft, missile, weapon, or vehicle configuration, when applicable.
6. Narrative description of all available facts and circumstances pertaining to the AID. Names of individuals involved should not normally be included. If a weapon or warhead is undergoing loading, mating, down-loading, or demating at the time the AID occurs, include: (1) date load team certified; (2) number of loadings completed by team in previous 90 days; (3) date of last loading by crew; (4) total number of continuous duty hours worked by loading team during last 24 hours; (5) weather conditions during loading. If during the hours of darkness, state type of lighting employed; and, (6) what supervisory personnel, in addition to load team chief, were present. Provide complete description and location of defects or damage and identify components involved.
7. Probable cause of AID. When appropriate, include the type of item that malfunctioned or the error that caused the AID.
8. Action taken to remedy the malfunction, damage or error; to provide safety and security; and to prevent recurrence, include repair or replacement actions. Recommend corrective action, if appropriate.
9. Other reports. If the AID involves another type of report under AFR 127-4, TO 00-35D-54, and so forth, state report type and initiating activity assigned number.
10. Damage or Injuries. A detailed statement, if appropriate, on property damage, personnel injuries or casualties, type of contamination involved, extent of exposure to radiation or radioactive material, existing nuclear hazard and radiation levels, condition of nuclear power system or minor radioactive source, and security of the material. Include status of weapon or disposition of nuclear material.
11. EOD, medical, or security assistance available or en route.

Figure 10-1. Nuclear Accident, Incident, and Safety Deficiency (AID) Reports.

12. News Release. Has a news release been made on the AID according to the USAF Information Plan? If yes, submit copy of news release and state to whom released. Include any known public reaction or political implications.
13. Name, grade, title (or position), and phone number of the person submitting this report.

Figure 10-1. Continued.

TABLE 10-1

REPORTING SCHEDULE FOR NUCFLASH, BROKEN ARROW, BENT SPEAR, AND FADED GIANT REPORTS					
L I N E	A	B	C	D	E
	Submit	when	by	to	and
1	OPREP-3 PINNACLE/NUCFLASH, PINNACLE/BROKEN ARROW, BENT SPEAR OR FADED GIANT (see note 3)	immediately	telephone; flash pre- cedence, unclassified	AF operations center (202) 697-6104 or AUTOVON 227-6104	send as required by JCS Pub 6, vol II, part 2, chap 4 or vol V, part 2, chap 3.
2	OPREP-3 NUCFLASH, BROKEN ARROW, BENT SPEAR or FADED GIANT	within 1 hr this report is manda- tory, and may not be waived by AF Operations Center	message flash pre- cedence (see note 1)	addresses in JCS Pub 6, vol II, add addresses in table 10-2 which are annotated as OPREP-3 addresses	use BROKEN ARROW in sub- ject for nuclear weapon accident. Use BENT SPEAR in subject for nuclear weapon incident. Use FADED GIANT in subject for Nuclear Power System/ Minor Radioactive Source accident or incident. Send as required by JCS Pub 6, vol II or V, JRS.
3	progress (use format in fig 10-1)	for a BROKEN ARROW, daily or as directed by Dir of Nuclear Surety	message, appropriate precedence (see note 1)	addresses in table 10-2	given subject as "Progress Report 1, 2, etc." and "Final Report."
4	supplemental (use format fig 10-1)	for a BENT SPEAR when information changes signif- icantly			give subject as "Supple- mental Report 1, 2, etc." and "Final Report."
5	formal (see note 2)	within 30 calendar days	AF Form 711 series		for extensions on due date, send requests to investigating major commander (info Dir of Nuclear Surety).

NOTES:

1. See paragraph 4-6 for MINIMIZE instructions.
2. Formal report of significant incident is not required unless directed by the Director of Nuclear Surety.

3. FADED GIANT mishaps are reported as:
 - a. PINNACLE/FADED GIANT. For Accidents.
 - b. BEELINE/FADED GIANT. For Incidents.

TABLE 10-2

ADDRESSEES FOR NUCLEAR ACCIDENT, INCIDENT AND SAFETY DEFICIENCY (AID) REPORTS

LINE	A	B	C	D
	Organization address	for	reports	remarks
1	Dir of Nuclear Surety, Kirtland AFB NM	SNA	all types	OPREP-3 addressee.
2	HQ USAF, Wash DC	IGF/1EYW		Materiel malfunction/failure/damage and TO deficiency reports only.
3	HQ AFLC, WPAFB OH AFLC LOC, WPAFB OH	IGY CC		
4	Dir SP WPNs, Kelly AFB TX	SWPT		OPREP-3 addressee.
5	HQ AFSC, Andrews AFB MD	IGF		
6	AFWL, Kirtland AFB NM	NTS NTY	FADED GIANT	
7	AFOSP, Kirtland AFB NM	SPO	all types	For security-related reports only. OPREP-3 addressee.
8	HQ AFISC, Norton AFB CA	CC/CS	NUCLASH BROKEN ARROW BENT SPEAR FADED GIANT	OPREP-3 addressee for reports indicated.
9	HQ AFMSC, Brooks AFB TX	SGP	NUCLASH BROKEN ARROW FADED GIANT	
10	BMO, Norton AFB CA	AWS	all types	Only when system/component/booster of a ballistic missile system is involved.
11	HQ ESC, Kelly AFB TX	XPX/IGF		Only when Airborne Launch Control System is involved.
12	AFSC, Kelly AFB TX	MAF		OPREP-3 addressee.
13	Major command, National Guard Bureau, or command concerned	as required		
14	Numbered Air Force or Subordinate Command			
15	3460 TCHTG, Lowry AFB CO	TTMTD		
16	System Manager, Air Logistics Center	MM/SE (see column D)		For materiel malfunction, failure/damage and TO deficiencies only. Refer to TO 00-25-115 for the ALC responsible for the delivery system.
17	Item Manager, Air Logistics Center	see column D		Only when general use support equipment (not FSG 11 or NOCM) is involved. For materiel malfunction/failure/damage and TO deficiencies only.
18	OL SA-ALC NSO, Kirtland AFB NM	SWN		Only when materiel failure or design deficiency of Nuclear Safety Certified item is involved.
19	AGMC, Newark AFS OH	SE		Only when Minuteman guidance systems, computer faults, or chromate leaks are involved.
20	AD, Eglin AFB FL	YNM		For reports on all munitions handling equipment. This includes all equipment vehicles involved with transporting, lifting, transferring and storing munition items.
21	AFLC LOC, WPAFB OH	CFM	NUCLASH BROKEN ARROW BENT SPEAR FADED GIANT	OPREP-3 addressee for reports indicated.

*BROKEN ARROW, BENT SPEAR reports only.

TABLE 10-3

REPORTING SCHEDULE FOR NUCLEAR DEFICIENCIES

L I N E	A	B	C	D	E
	Submit	when	by	to	and
1	one-time or preliminary (use format in fig 10-1)	within 5 workdays (see note 1)	message; routine precedence (see note 2)	addresses in table 10-2	Use DULL SWORD in subject of all nuclear safety deficiencies.
2	supplemental or final (use format in fig 10-1)	as required			

NOTES:

1. For combined Dull Sword-CAT I MDR reports, the suspense requirements of TO 00-35D-54 take precedence over the five day reporting requirement. Similarly, for Dull Sword reports involving weapons in non-operational status or where possible action/evaluation by the design agen-

cy is needed, reports within three days are required.

2. See paragraph 4-6 for MINIMIZE instructions. Occasionally, a Dull Sword situation or event may warrant higher priority. Do not use higher priorities solely to meet time suspense.

ARMY REGULATION No. 40-14
 BUMED INSTRUCTION 6150.18B
 AIR FORCE REGULATION No. 161-8
 DEFENSE SUPPLY AGENCY
 REGULATION No. 4145.24

DEPARTMENTS OF THE ARMY, THE
 NAVY, AND THE AIR FORCE AND
 THE DEFENSE SUPPLY AGENCY,
 WASHINGTON, D.C., 29 September 1966

MEDICAL SERVICE

CONTROL AND RECORDING PROCEDURES OCCUPATIONAL EXPOSURE TO IONIZING RADIATION

	Paragraph
Purpose.....	1
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1. Purpose. These regulations prescribe procedures and responsibilities for the control and recording of occupational exposure to sources of ionizing radiation and implement the guidelines promulgated by the Federal Radiation Council. These regulations are applicable to all individuals who are employed by or are members of the Armed Forces. They are not applicable to exposure: (a) To ionizing radiation resulting from the employment of nuclear or thermonuclear weapons in combat military operations, or (b) of personnel being examined or treated for medical or dental purposes. For activities holding U.S. Atomic Energy Commission licenses, the appropriate provisions of Title 10, Code of Federal Regulations also apply except that the DD Form 1141, "Record of Occupational Exposure to Ionizing Radiation," will be used in lieu of AEC Form 4, "Occupational External Radiation Exposure History," and AEC Form 5, "Current Occupational External Radiation Exposure."

2. Cancellation. This directive cancels and supersedes AR 40-14/BUMEDINST 6150.18A/AFR 161-8, 21 October 1964.

3. Definitions. Terms used in these regulations are defined as follows:

a. *Roentgen, rad, rem, and dose equivalent.*—For the practical application of these regulations, one roentgen of X- or gamma-radiation, measured in air at or near the point of delivery to the body, is considered to deliver a Dose Equivalent of one rem to the body tissues. The Dose Equivalent for protons, neutrons, beta and other particles is the dose in rads multiplied by the appropriate modifying factors. For beta particles having an average energy greater than 1.2 MEV, the modifying factor is 1. For neutrons of unknown energies, a modifying factor of 10 shall be used.

Where more definitive definitions are required, those provided in National Bureau of Standards Handbook 84, *Radiation Quantities and Units*, shall be used.

b. *Ionizing radiation.*—Electromagnetic or particulate radiation, which may cause ionization within the cells or tissues of the body. For purposes of these regulations, alpha and beta particles, gamma rays, X-rays, and neutrons are examples of types of ionizing radiation.

c. *Occupational exposure to ionizing radiation.*—An exposure incurred as a result of an individual's employment or duties. Occupational exposure shall not be deemed to include the ex-

*Supersedes AR 40-14/BUMEDINST 6150.18A/AFR 161-8, 21 October 1964.

posure of an individual to sources of ionizing radiation for the purpose of medical or dental diagnosis or therapy of that individual.

d. *Radiation sources.*—Materials, equipment, or devices which generate or are capable of generating ionizing radiation, including: (1) naturally occurring radioactive materials, (2) byproduct materials, (3) source materials, (4) special nuclear materials, (5) fission products, (6) materials containing induced or deposited radioactivity, (7) nuclear reactors, (8) radiographic and fluoroscopic equipment, (9) particle generators and accelerators, and (10) radio frequency generators such as certain klystrons and magnetrons which produce X-rays.

e. *User.*—The activity, section, division, or other organizational unit which has been assigned responsibility for the use, operation, or storage of radiation sources.

f. *Radiological protection officer.*—An individual designated by the commander to provide consultation and advice on the degree of hazards associated with ionizing radiation and the effectiveness of measures to control these hazards. This individual shall be technically qualified by virtue of education, military training, and/or professional experience to assure a capability commensurate with the assignment. The term "Radiological Protection Officer" is a functional title and is not intended to denote a commissioned status or a job classification within the Armed Forces.

4. **Responsibilities.** The commander of any installation, or activity, which possesses or uses a radiation source or sources is responsible for ensuring that measures are established to control ionizing radiation from such sources so that the radiation dose to individuals under his command or within his jurisdiction will be no greater than the amount prescribed in these regulations. He shall also ensure that the necessary measurements of exposures of personnel are made and the amount of such exposures recorded as herein prescribed.

a. The commander of an installation or activity where there are operations involving the use of multiple radiation sources for purposes of research and development, industrial radiography, or medi-

cal or dental diagnosis or therapy shall appoint a radiological protection officer to advise on the control of the hazards to health and safety from the specific materials or devices being used.

b. The commander of an installation or activity licensed by U.S. Atomic Energy Commission to use byproduct materials (unless otherwise specifically exempted) shall appoint an ionizing radiation control committee to review proposals for the use of the licensed radiation sources and to make recommendations to the commander concerning the protective measures to be taken. This committee shall include: (a) the radiological protection officer, (b) the responsible staff medical officer, and (c) other persons as deemed necessary. The committee described herein shall not exercise the functions of a clinical board or committee on radioisotopes in a medical facility, nor shall this committee exercise any function in nuclear reactor or weapons programs which are administered by each of the Armed Forces under the provisions of appropriate Departmental Directives.

5. **Radiation Protection Standards.** Every effort shall be made to maintain radiation doses as far below the following *Radiation Protection Standards* as practicable. Positive efforts shall be carried out to fulfill this objective, and determination of necessity should be weighed against the benefits to be expected.

a. *Basic Radiation Protection Standards* adopted by the Departments of the Army, Navy, and Air Force and the Defense Supply Agency (DSA) for the control of occupational exposures to ionizing radiation include:

- (1) The accumulated dose of radiation to the whole body, head, and trunk, active blood-forming organs, gonads, or lens of the eye shall not exceed:
 - (a) 3 rem in any calendar quarter, nor
 - (b) $5(N-18)$ rem total lifetime dose, where N equals the present age in years.
- (2) The accumulated dose of radiation to the skin of the whole body or the thyroid shall not exceed:
 - (a) 10 rem in any calendar quarter, nor
 - (b) 30 rem in any calendar year.

- (3) The accumulated dose of radiation to the hands and forearms or the feet and ankles shall not exceed:

- (a) 25 rem in any calendar quarter, nor
(b) 75 rem in any calendar year.

b. *Alternate Radiation Protection Standards*, less restrictive than those prescribed in paragraph a, may be used in special circumstances, when approved by the Surgeon General of the military department concerned. Proposals for the use of alternate standards will contain complete justification and should describe the means by which the standard will be implemented.

c. No individual under 18 years of age shall be occupationally exposed to ionizing radiation in excess of that allowed to any individual in the population at large.

6. **Personnel Dosimetry.** An appropriate personnel monitoring device shall be used to measure the exposure of each individual who is likely to receive an accumulated dose of radiation in excess of 10 percent of the applicable quarterly basic *Radiation Protection Standard*. Consideration shall be taken of all other occupational exposures the individual may receive during that calendar quarter.

a. Commanders of installations or activities under the jurisdiction of the Department of Defense shall furnish the required exposure information to the appropriate custodian of the medical records of each monitored individual at intervals not to exceed a calendar quarter. The commander need not furnish reports of zero exposures to monitored visitors, unless requested by the visitor or the custodian of his medical records.

b. When a Department of Defense employee or a member of the Armed Forces governed by these regulations is exposed to ionizing radiation at an installation outside the jurisdiction of the Department of Defense, he shall ensure that the required exposure information is furnished to the custodian of his medical record.

c. The separate requirements of the individual military departments with respect to personnel dosimetry are as follows:

- (1) *Department of the Army.*—The primary dosimetric device shall be the film packet,

except for field radiography in combat or simulated combat conditions when the direct reading personnel dosimeter (0-200 mr range) has been designated by the command Surgeon as the primary device to be worn by personnel occupationally exposed to X-ray. The film packet dosimetry service for Army installation and units is provided for by SB 11-206, *Film Badge (Photodosimetry) Supply and Service for Technical Radiation Exposure Control*, and this service will be employed solely for film packet dosimetry, except in unusual circumstances as approved by the Commanding General, U.S. Army Materiel Command.

- (2) *Department of the Navy.*—Navy and Marine Corps activities shall utilize appropriate dosimetric devices in accordance with NAVMED P-5055, *Radiation Health Protection Manual*, and other applicable directives.

- (3) *Department of the Air Force.*—The primary dosimetric device shall be the film badge. The film badge service for Air Force installations is provided by the USAF Radiological Health Laboratory, Wright-Patterson AFB, in accordance with the provisions of AFR 161-11.

- (4) *Defense Supply Agency.*—The primary dosimetric device shall be the film packet. The film packet dosimetric service for DSA field activities will be prescribed by HQ DSA (DSA-H-W).

7. **Recording Procedures.** The custodian of the medical records shall prepare and maintain DD Forms 1141 for each person occupationally exposed to ionizing radiation. All exposure entries shall be made in rem.

a. *Initial determination of accumulated dose.*—In the initial preparation of a DD Form 1141, reasonable efforts should be made to obtain complete reports of all previous exposure based on recorded personnel dosimetry. For each period in which the individual was engaged in activities where occupational exposure to ionizing radiation was probable, and no record, or only an in-

complete record, of his exposure during the period can be obtained, it shall be assumed that an occupational exposure of 1.25 rem was incurred per quarter of each calendar year or fraction thereof. In cases where the nature of the radiation is unknown, it shall be assumed to be gamma radiation. If an individual was potentially exposed at more than one facility, the cumulative exposures shall be calculated and recorded in items 7 through 12, as appropriate. The sum of these whole body exposures shall be entered in item 13, and a statement regarding the source of that information shall be entered in item 16, REMARKS.

b. *Current record.*—Appropriate entries on each individual's DD Form 1141 shall be made periodically, at least quarterly, from the exposure records supplied under the provisions of paragraph 6 above. Separate DD Forms 1141 shall be maintained to record exposures other than whole body, with appropriate descriptions under item 16, REMARKS.

c. *Retention and Disposition of DD Forms 1141.*

- (1) The DD Form 1141 is a permanent component of the individual's medical record and shall not be used for other purposes. All previous copies of this form shall be retained in the individual's medical record. Commanders or commanding officers, authorized inspecting officials, or supervisors of persons occupationally exposed to ionizing radiation, and the individual concerned, may review his DD Form 1141 with the custodian of the medical records.
- (2) When a civilian employee of the Armed Forces is not included in a Federal civilian employees health service, a DD Form 1141 will be maintained as a permanent document in his SF 66, "Official Personnel Folder."
- (3) The DD Form 1141 shall be retained in the retired medical records of any member of the Armed Forces who has been

occupationally exposed to ionizing radiation during his services. Disposition of DD Forms 1141 for retired or separated civilian personnel will be made in accordance with governing civilian personnel directives.

- (4) If any member of the Armed Forces is released from active duty, or if a civilian employee terminates employment with a DOD agency, he may be furnished the appropriate information concerning his radiation exposure history.

8. *Control Procedures.* The custodian of the health records shall evaluate at intervals not to exceed a calendar quarter the DD Form 1141 of each individual engaged in duties involving occupational exposure to ionizing radiation. He shall establish procedures to inform and advise the cognizant commander when action is necessary to limit an individual's exposure to ionizing radiation.

a. When an individual has received a dose of ionizing radiation in an amount exceeding 3 rem per calendar quarter, he shall be removed from duties involving occupational exposure to ionizing radiation until subsequent exposure limitations are established in consultation with competent medical authority. When an individual has received an accumulated dose of ionizing radiation in excess of 5(N-18) rem, he shall be removed from duties involving occupational exposure to ionizing radiation until his exposure record has been evaluated by the Surgeon General of the military department concerned or by authorized personnel in HQ DSA and subsequent exposure limitations are established as necessary.

b. Reports of exposures in excess of the limitations, as defined by the Surgeon General of each of the Armed Forces or by authorized personnel in HQ DSA, shall be made in accordance with applicable directives.

9. *Supply of Forms.* DD Form 1141 will be available through normal supply channels.

By Order of the Secretaries of the Army, the Navy, and the Air Force and the Director,
Defense Supply Agency:

Official:

KENNETH G. WICKHAM,
*Major General, United States Army,
The Adjutant General.*

HAROLD K. JOHNSON,
*General, United States Army,
Chief of Staff.*

Official:

R. J. PUGH,
*Colonel, United States Air Force,
Director of Administrative Services.*

R. B. BROWN,
*Vice Admiral, MC, United States Navy,
Chief, Bureau of Medicine and Surgery.*

J. P. McCONNELL,
*General, United States Air Force,
Chief of Staff.*

Official:

WILLIAM PAULE,
*Colonel, United States Air Force,
Staff Director, Administration.*

E. M. TEETER,
*Colonel, United States Army,
Executive, Defense Supply Agency.*

Distribution:

Army: Active Army, NG and USAR: To be distributed in accordance with DA Form 12-9 requirements for Medical Services—A.

Navy: All Ships and Stations. (Navy: SNDL Parts 1 and 2. Marine Corps: MARCORPS Lists "H" and "I." Additional copies may be obtained by Navy/Marine Corps addressees from Supply and Fiscal Department (Code 514.32), Naval Station, Washington, D.C. 20390.)

Air Force: S.

Defense Supply Agency: C.

3 August 1981

Aerospace Medicine

USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY (OEHL) SERVICES

This regulation sets up the analytical, engineering, and consultant services to support the operational needs of the occupational, radiological, and environmental health programs at Air Force bases worldwide. It gives policy and assigns responsibilities for developing and providing consultant and laboratory services. It applies to all Air Force installations and activities

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SECTION A—RESPONSIBILITIES FOR OCCUPATIONAL AND ENVIRONMENTAL HEALTH SERVICES

1. The Surgeon General. The Director of Professional Services (HQ AFMSC/SGP):

a. Provides policy for a coordinated program of analytical, engineering, and consultant services to support the Air Force Medical Service responsibilities for occupational health, radiological health, and environmental quality programs.

b. Directs special projects and investigations of

special interest to the Air Staff and Secretariat and assigns priority for these studies.

c. Serves as the Air Staff office of responsibility for all requests for laboratory support from all organizations outside the Department of the Air Force.

d. Gives documentary support during budget process for automatic data processing and laboratory equipment to meet mission requirements.

2. Major Commands (MAJCOMs). All MAJCOM surgeons will review, evaluate and determine priorities of requests for USAF OEHL support from their units.

a. HQ AFSC Surgeon:

(1) Includes in command budget submissions funds necessary to support and enhance the USAF OEHL mission.

(2) Programs for professional and technical staff, and support facilities.

Supersedes AFR 161-17, 18 February 1977. (See signature page for summary of changes.)

No. of Printed Pages: 5

OPR: HQ AFMSC/SGPA (Col Victor C. Furtado)

Approved by: HQ AFMSC/SG (Brig Gen J. F. Culver)

Distribution: F

(3) Reviews and validates requests for priority services.

b. HQ United States Air Forces in Europe (USAFE) Surgeon:

(1) Has operational control and supervision of the occupational and health analytical and consultant services provided by the USAF Hospital Wiesbaden.

(2) Programs for professional and technical staff and facilities to support the analytical and consultant services.

(3) Budgets for operations and maintenance, civilian salaries, and other funds necessary to support the services.

(4) Supplements this regulation in coordination with the USAF OEHL Commander to specify the analytical, engineering, and consultant services available from the USAF Hospital Wiesbaden.

c. HQ Pacific Air Forces (PACAF) Surgeon:

(1) Supplements this regulation in coordination with the USAF OEHL Commander to specify the analytical, engineering, and consulting services available from Operating Location (OL) AD, USAF OEHL.

(2) Gives support to OL AD USAF OEHL through the USAF Regional Medical Center Clark, and other Clark Air Base organizations as required.

3. Aerospace Medical Division, Air Force Systems Command (AFSC):

a. Has operational control and supervision of the USAF OEHL.

b. Budgets for operations and maintenance (O&M), civilian salaries, and other funds necessary to support the USAF OEHL mission.

c. Provides consultation in toxicology, aerospace and preventive medicine to USAF OEHL. Also provides support to the USAF OEHL in all air base group functions and USAF School of Aerospace Medicine (USAFSAM) support functions, as mutually determined by the commanders involved.

4. USAF OEHL Commander:

a. Develops, organizes, and commits resources to manage and operate the USAF OEHL. Maintains capability to provide expert analytical, bioenvironmental engineering, consultant, health physics, and technical services to support the occupational, radiological, and environmental health program for Air Force activities worldwide.

b. Contracts with funds provided by the requesting activity for environmental field studies and analytical services beyond the capability of the USAF OEHL. The USAF OEHL is also authorized to establish and maintain on-call type contracts funded through the O&M budget system. Contracts for USAF OEHL technical services will be administered and monitored in accordance with Air Force contract regulations and directives and coordinated with the Aeronautical Systems Division (AFSC).

c. Provides technical review of proposed federal legislation, rulemaking, criteria documents and standards, when requested by HQ Air Force Medical Service Center (AFMSC/SGPA).

d. Drafts Air Force Occupational Safety and Health (AFOSH) standards, regulations, pamphlets, technical orders, and military standards on occupational and environmental health subjects to support HQ AFMSC/SGPA.

e. Seeks and maintains accreditation of the laboratory in industrial hygiene analysis by the American Industrial Hygiene Association, drinking water analysis by the State of Texas and other necessary states or the Environmental Protection Agency (EPA), and other appropriate laboratory accreditation groups.

f. Runs an analytical laboratory quality assurance program.

g. Serves as Air Force focal point for the Department of Defense (DOD) Hazardous Material Information System (HMIS) (see paragraph 10).

SECTION B—SERVICES PROVIDED BY USAF OEHL

5. General:

a. The USAF OEHL, Brooks AFB TX 78235, provides complete consulting, engineering, and analytical support services worldwide. The Operating Location AD (OL AD USAF OEHL) APO San Francisco 96274 and USAF Hospital Wiesbaden/SGP, APO New York 09220 provide limited services to activities within their geographical responsibility.

b. To be responsive to the needs of the field, samples should be analyzed within 10 workdays after arrival in the USAF OEHL. The USAF OEHL should respond to requests for field studies within 7 workdays after receipt and these studies should be underway within 90 days following receipt of the request.

c. Oversea activities should request services first from OL AD USAF OEHL or USAF Hospital Wiesbaden/SGP, unless otherwise directed by PACAF or USAFE supplement to this regulation.

6. Analytical Services:

a. Provides analytical support to base environmental and occupational health programs including chemical analyses of potable water, waste water, biological specimens, air or gas samples and other materials.

b. Provides radioassay services for all types of radionuclides found in biological, environmental, and industrial materials.

c. Maintains whole body counting capability to support routine and emergency evaluation of people accidentally exposed to radionuclides, where the person may have inhaled, ingested, or experienced wound contamination by radioactive material.

d. Offers consultation on chemical and radiochemical sampling techniques, procedures, and interpretation of results; the properties and potential risks of

chemicals; sample collection media, and preservation needed; and analyses methodologies.

e. Provides special collecting containers and media if required by the sampling agency.

f. Maintains radiation counting capability to support the USAF Disaster Preparedness Program.

g. Evaluates and sets up standard analytical procedures and instrumentation to make sure of compliance with EPA and other regulatory agency directives.

7. Consulting Services:

a. Bioenvironmental Engineering:

(1) Gives guidance and aid in industrial hygiene, air pollution, health physics, sanitary engineering, solid and hazardous waste disposal, and environmental sanitation to Air Force installations.

(2) Buys specialized environmental sampling and testing equipment for loan to bases for use in their bioenvironmental engineering programs.

(3) Gives advice and guidance on sampling equipment, instruments, methods, calibration, and interpretation of results to establish and evaluate environmental pollution monitoring, occupational health, and radiological health programs.

(4) Provides technical information on methods for sanitary and industrial waste treatment, air pollution control, and ionizing and nonionizing radiation control.

(5) Conducts special studies and on-site surveys to solve industrial hygiene, radiation, and environmental pollution problems.

(6) Maintains information about techniques, procedures, and equipment for use in Air Force industrial hygiene, radiation, and environmental pollution control programs.

b. Ecology and Biological Services:

(1) Provides consultation, keeps a data bank and prepares opinions in accordance with AFR 161-13 in regards to veterinary claims.

(2) Monitors Air Force use of pesticides, and advises the Armed Forces Pest Management Board about environmental implications of new pesticides.

(3) Provides guidance for storage, handling, disposal, and exposure to pesticides.

(4) Uses plant and animal bioassay techniques to find the environmental effects of toxic materials and to investigate fish kill incidents.

(5) Provides consulting service in shipment and quarantine requirements, use of pesticides or herbicides, and identification of plant and animal species.

(6) Evaluates water quality by determining abundance, distribution, and diversity of aquatic biota, and by using fish for on-site biomonitoring.

(7) Maintains information files on pesticides, endangered or threatened species, heavy metals, common toxic contaminants of food stuffs, and acceptable levels of contaminants in food stuffs.

(8) Does on-site ecological and biological surveys to evaluate and develop solutions for both occupational and environmental pollution problems involving pesticides or herbicides.

(9) Develops monitoring techniques to find chemical residue levels in soil, water and biological samples.

(10) Runs biodegradability and bioassay studies to find the treatability of domestic and industrial wastes.

8. Radiation Protection Services:

a. Operates worldwide Air Force personnel dosimetry program in accordance with AFR 161-28.

b. Conducts calibration, traceable to the National Bureau of Standards, and minor repair services for portable instruments used and owned by the Medical Service for the detection and measurement of electromagnetic and ionizing particulate radiation.

c. Maintains the USAF stock of low energy photon field survey instruments, with trained operators to support disaster operations.

d. Deploys a mobile, self-contained radioanalytical laboratory to do selected radiochemical analyses of environmental and biological samples to support on-site recovery operations after nuclear or other radiological accidents.

e. Reviews and evaluates shielding and safety proposals and plans for medical and industrial radiographic facilities.

f. Conducts ionizing radiation protection surveys of medical, dental and nondestructive X-ray facilities at all Air Force installations not having an assigned health physicist or qualified expert, in accordance with AFM 161-38 and T.O. 33B-1-1.

g. Performs nonionizing radiation protection surveys.

h. Conducts special projects dealing with long- or short-term evaluations of radiation exposures.

9. Information Services. The USAF OEHL develops and maintains dedicated in-house capabilities and staff to apply automatic data processing techniques.

a. Maintains the following data repositories:

(1) Operational characteristics of radiofrequency (RF) emitters.

(2) RF overexposures.

(3) USAF master radiation exposure registry.

(4) Environmental pollution monitoring.

(5) Water quality.

(6) Analytical samples results.

(7) Results of historical studies of occupational exposure to physical, chemical and biological hazards.

(8) Others as directed by higher headquarters.

b. Provides automated storage, retrieval, and display, and performs analysis of all data to assist in

evaluating the effectiveness of occupational, radiological, and environmental health programs.

10. Material Safety Data Sheets (MSDSs). MSDSs will be obtained on all hazardous materials procured by DOD agencies. The Air Force will get MSDSs for hazardous materials for which the Air Force is designated DOD integrated material manager. These MSDSs will be sent to the USAF OEHL for review to make sure the data are complete, reasonable, and legible. The USAF OEHL will send completed MSDSs to the DOD Central Repository, Defense General Supply Center (DGSC), Richmond VA 23297, for DOD-wide distribution to health, safety and transportation personnel. If, during the USAF OEHL review, the MSDS is found incomplete or has data which appear to be wrong, the USAF OEHL will return the MSDS to the appropriate procurement officer for correction of the deficiencies.

If necessary, the USAF OEHL is authorized to do chemical analysis or other tests to get desired data. The USAF OEHL will also make sure that the DGSC Central Repository has a complete and accurate list of those Air Force organizations routinely requiring MSDS data. Requirements for MSDS data will be established at MAJCOMs and sent to the USAF OEHL.

11. How to Request Services:

a. Send samples for analysis to USAF OEHL/SA, Brooks AFB TX 78235. Use the following forms to request analyses:

(1) AF Form 2750, Industrial Hygiene Sampling Data

(2) AF Form 2751, Bulk Material Sampling Data

(3) AF Form 2752, Environmental Sampling Data

(4) AF Form 2753, Radiological Sampling Data

b. Direct verbal and written communications between activities, major commands, USAFE laboratory, OL AD USAF OEHL and the USAF OEHL concerning professional and technical matters are authorized and encouraged.

c. USAFE Bases. Send requests for field surveys to USAFE/SGPA for review, validation and establishing of priorities. USAFE/SGPA sends valid requests which are beyond the capability of USAFE to AFSC/SGP, with an information copy to USAF OEHL/CC.

d. PACAF Bases. Send field survey requests to PACAF/SGPE with an information copy to OL AD USAF OEHL.

(1) PACAF/SGPE reviews, validates, establishes priorities and forwards request to OL AD USAF OEHL, with information copies to USAF OEHL/CC.

(2) PACAF/SGPE sends valid requests, which are beyond the capability of OL AD USAF OEHL, to AFSC/SGP, with information copies to OL AD USAF OEHL and USAF OEHL/CC.

e. Other Bases. Send requests involving major expenditures of laboratory resources or field surveys to

the proper MAJCOM/SGP for validating and establishing of priorities. MAJCOM/SGP sends valid requests to USAF OEHL/CC, with an information copy to AFSC/SGP. To support development of the USAF OEHL budget, MAJCOMs should plan on-site field survey requests at least one year in advance if possible.

f. Priority Requests. Send requests for priority services (excluding sample analysis) to AFSC/SGP for approval.

SECTION C—SERVICES PROVIDED BY USAF HOSPITAL WIESBADEN

12. General:

a. The Bioenvironmental Engineering Service of the USAF Hospital Wiesbaden provides consultant engineering and analytical support services within the USAFE area of responsibility.

b. To be responsive to the needs of the field, samples should be analyzed within 10 workdays after arrival at the USAF Hospital Wiesbaden and field studies should be underway within 90 days after receipt of approved requests.

13. Analytical Services:

a. Provides specialized analyses of soil, water, air, gases and other materials. These analyses will include asbestos counting and routine pesticide analysis.

b. Conducts routine liquid oxygen and breathing air analyses in support of all USAFE units.

c. Offers consultation on special or unique sampling techniques and procedures.

d. Provides special collection containers not normally available to field units.

14. Bioenvironmental Engineering Services:

a. Gives advice and aid in industrial hygiene, air pollution, health physics, sanitary engineering, and environmental sanitation to USAFE bases on the conduct of occupational health and environmental pollution control programs.

b. Maintains specialized environmental sampling and testing equipment for loan to bases for use in their bioenvironmental engineering programs.

c. Gives advice and guidance on sampling equipment, instruments, methods, calibration and interpretation of results needed to establish and evaluate environmental pollution monitoring, occupational health, and radiological health programs.

d. Gives technical information on methods for sanitary and industrial waste treatment, air pollution, and ionizing and nonionizing radiation control.

e. Does special studies and on-site surveys to solve industrial hygiene, radiation, and environmental pollution problems.

f. Keeps a limited bank of information about techniques, procedures, and equipment for use in Air Force industrial hygiene, radiation, and environmental pollution control programs.

15. Ecology and Biological Services:

- a. Runs limited studies on domestic animals, fowl, fish, and wildlife, to assess environmental stresses resulting from USAFE operational activities.
- b. Conducts limited biodegradability and bioassay studies to find the treatability of Air Force-generated liquid wastes in domestic and industrial waste treatment plants, and the toxicity of wastes to aquatic life.
- c. Does limited surveillance studies of pesticide pollution.

16. Technical Services:

- a. Calibrates selected portable instruments used

and owned by USAFE Medical Service units for the collection of industrial hygiene samples.

- b. Provides manpower and equipment for initial response to major chemical spills or nuclear accidents.

17. How to Request Services. Direct verbal and written communication among USAFE activities and the USAF Hospital Wiesbaden/SGP is authorized and encouraged on professional and technical matters and on the activities and capabilities of the hospital. The user activity must send requests involving major use of laboratory resources or field surveys in writing to HQ USAFE/SGPA, APO New York 09012, with an information copy to USAF Hospital Wiesbaden/SGP, APO New York 09220.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

LEW ALLEN, JR., General, USAF
Chief of Staff

VAN L. CRAWFORD, JR., Colonel, USAF
Director of Administration

SUMMARY OF CHANGES

This revision clarifies the expanded role of the several laboratories conducting occupational and environmental health analyses and studies, and refines procedures by which field units may request support. This revision also reflects the conversion of the 1st Medical Service Wing laboratory function to OL AD USAF OEHL.(2c)

12 February 1979

Medical Education and Research

USE OF HUMAN SUBJECTS IN RESEARCH, DEVELOPMENT, TEST AND EVALUATION

This regulation outlines worldwide Air Force policy and procedures for protecting the rights and welfare of human subjects at risk in research, development, test, and evaluation conducted or funded by the Air Force. It applies to all Air Force components and all Air Force contractors or grantees. It does not apply to the Air Force Clinical Investigation Program outlined in AFR 169-6. Together with AFR 169-6, it implements DOD Instruction 5030.29, 12 May 1964. This regulation will not be supplemented without prior approval of this headquarters.

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OPR: SGES (Lt Col George S. Kush)

Approved by: Brig Gen Ernest J. Clark

Writer-Editor: M.O. Norby

Distribution: F

SECTION A — EXPLANATION AND POLICY

1. **Use of Human Subjects In Research Explained.** The chief objective of aerospace research and development, that specifically requires a human subject, is to acquire definitive data on human response to environmental stress. These data are the primary source of biomedical design criteria used in aerospace weapon system development and operating planning.

a. Extensive human tests are necessary to identify physiologic tolerance limits and measures that will augment human performance capabilities in mission stress environments. Examples of these environments are: thermal imbalance, sustained acceleration, impact acceleration, noise and vibration, altered barometric pressure, abnormal atmospheres, and toxic contaminants.

b. Nonhuman subjects, both animals and nonliving analogs (dummies, phantoms, etc.), must be used whenever human subjects are not required. Preliminary evaluations to define the extent of hazard, lethality studies, and exposure studies where irreversible injury is expected to occur, must always be conducted with nonhuman subjects. Even though much valuable and useful data are obtained from these investigations, nonhuman experimentation has distinct limitations.

c. Research involving human subjects in the Air Force is primarily directed toward weapon system applications. Many experiments seek to measure the human stress response of crews in a specific man-machine configuration. In this research, the subject must be consciously involved as a perceiving, performing, and evaluating participant. Animals are unable to make a verbal assessment, and their ability to perform higher order tasks is sharply limited. Even in a simple biomechanical or physiological investigation, the variation between species and the differences in characteristics are major obstacles to the process of extrapolating the research data to humans.

d. In most cases, to avoid adopting either invalid design criteria or unnecessarily conservative design criteria, definitive human tests are ultimately required. To insure continuing technological progress, human experimentation is indispensable:

- (1) To set human tolerance limits.
- (2) To predict human performance capabilities.
- (3) To optimize the effectiveness of man-machine systems.
- (4) To optimize personal equipment design concepts.

2. **Air Force Policy:**

a. It is the expressed policy of the Air Force to limit the use of human subjects in research projects to those that are deemed mission-related or mission-essential, and for which the desired data cannot be derived from valid animal studies or from reliable computer modeling techniques.

(1) Each project involving human subjects must be reviewed at the research protocol level to determine that the rights and welfare of the subject are adequately protected, that the risks to the subject are outweighed by the importance of the knowledge to be gained, and that informed consent is obtained by approved methods.

(2) Participation of females as volunteer subjects is permitted only:

(a) When there is reasonable assurance of no concomitant pregnancy that would place the fetus at risk.

(b) When the contraception methods do not place the female subject at increased risk without complete disclosure of this risk to the female subject.

(3) Children, prisoners, mentally disabled persons and institutionalized mentally infirm persons must not participate as human subjects in Air Force research projects.

b. Safeguarding the rights and welfare of human subjects involved in research projects performed within any component of the Air Force is the responsibility of the component conducting the project.

c. Safeguarding the rights and welfare of human subjects involved in research projects supported by an Air Force grant or contract is the responsibility of the organization that receives the funds from, or is accountable to, the sponsoring Air Force component.

SECTION B — TERMS AND PRINCIPLES

3. **Explanation of Terms.** For the purpose of this regulation, the following definitions shall apply:

a. **At Risk.** A human subject is considered at risk if the subject is exposed to the possibility of harm—physical, biological, psychological, sociological, or other—as a consequence of any act or omission which increase ordinary risks of daily life, excluding the recognized risks inherent in a chosen occupation or field of service.

(1) Persons performing assigned duties that involve inherent occupational hazards to health, or exposure to potentially hazardous situations requiring orders for regular and frequent performance of

hazardous duty; for example, flight training and flight testing, jump training, pressure chamber training, and handling of explosives, etc., are not considered at risk as intended by this regulation.

(2) Determination of the nature and extent of the term "at risk" is a matter of common sense and sound professional judgment, and responsibility for this determination rests at all levels of review.

b. **Consent.** The process by which a prospective human subject, who has the legal capacity, agrees to participate in a research project. Generally, a minimum age of 21 years will be a precondition of such legal capacity to give consent, except in those jurisdictions where a lesser age is specified. For active duty military personnel participating in an in-house study there is no minimum age.

(1) Consent must be voluntary given, freely and without any use of force, fraud, deceit, duress, constraint, coercion, or unlawful or improper inducement. It must be based on the individual's possession of sufficient understanding of the implications of his or her participation in the study to enable the person to make an informed decision.

(2) The individual must be told as much of the nature, duration, and purpose of the study as will not invalidate the results, and of the inconveniences and hazards which can reasonably be anticipated.

c. **Contract.** Any contract, grant, interagency transfer, or other agreement by which funds chargeable to the Department of the Air Force are made available to any organization. Likewise, the term "contractor" shall include any contractor, grantee, or other organization party to a contract, as defined above.

d. **Human Subject.** Any human being who, knowingly or unknowingly, is subjected to an act or omission, whether at risk or not, the object of which is to contribute to knowledge to be gained as a part of a research project.

e. **Human Use Committee Review.** The review of study protocols, by an Institutional Review Board or other similar committee established by the organization responsible for the research project, to ensure that any proposed use of human subjects for research is consistent with the basic principles outlined in paragraph 4.

f. **Investigational Drugs.** Medications, which upon administration constitute research on human subjects in the sense of this regulation, are those which are neither listed in the US Pharmacopoeia, National Formulary or Accepted Dental Remedies, nor approved for general use by the Food and Drug Administration (FDA), as well as those approved, well-accepted medications administered to human volunteers for non-therapeutic purposes (for ex-

ample, testing their potential effectiveness in augmenting human tolerance to mission stress environments). Use of an FDA approved drug for therapeutic effects not described in the drug labeling, but which is widely reported and generally accepted, is within the scope of normal medical practice and does not constitute drug research in the sense of this regulation.

g. **Organization.** Any federal, state, municipal or other government agency, or any corporation, institution, foundation, agency, or other legally accountable entity.

h. **Protocol.** The detailed plan by which a research project is to be conducted, and which contains, as a minimum, the objectives of the project, the method and means by which they are to be achieved, an analysis of potential risk to human subjects and contraindications, safety measures, and other means to be used to reduce any risks to human subjects.

i. **Generic Protocol.** A generic protocol describes a research project involving the use of human subjects at risk in a group of closely related and similar studies which differ from each other in ways that are not likely to change the degree of risk involved.

(1) A generic protocol does not contain a detailed plan of every possible study that might be undertaken, but includes a description of the boundary conditions that cover all the potential risks and procedures that might be used in the future in this area and the standards to use in safeguarding subject(s). The equipment to be used, including safety equipment, must be discussed in detail, along with all conditions to which the subject(s) will be exposed, and the deviations from normal vital signs that will be allowed prior to suspension of the subject's participation.

(2) The use of generic protocols is acceptable only if the conditions under which the study is being conducted are so well understood that the described safety limits are clearly acceptable to the subject. Sample consent forms will be part of the generic protocol submission.

(3) All generic protocols must be approved by HQ USAF. This approval shall be for a stated time period (generally one year), subject to renewal. However, since a generic protocol does not permit evaluation of all the factors required prior to approval of a particular study, each individual study to be conducted under a generic protocol must receive the approval of the research organization's Human Use Committee.

j. **Research Project.** Any research program, project, task, test, experiment, or similar undertaking. For the purposes of this regulation, the term research applies to all test and evaluation efforts in the technology base program and the development and acquisition programs.

4. **Basic Principles of Managing Research.** Certain basic principles must be rigidly observed in order to satisfy moral, ethical, and legal concepts. These principles include:

a. **Consent Standards.** The following standards shall be adhered to in all cases:

(1) All consent must be voluntary. It must be the knowing consent of the individual or a legally authorized representative, so situated as to be able to exercise free power of choice without undue inducement or any element of force, fraud, deceit, duress, or other form of constraint or coercion. The basic elements of information necessary to such consent include:

(a) A fair explanation of the procedures to be followed and their purposes, including identification of any procedures which are experimental.

(b) A description of any attendant discomforts and risks that can reasonably be expected.

(c) A description of any benefits that can reasonably be expected.

(d) A disclosure of any alternative procedures that might be advantageous to the subject, including the rationale for not selecting these procedures for accomplishing the project.

(e) An offer to answer any inquiries concerning the procedures.

(f) An instruction that the subject is free to withdraw his or her consent and to discontinue participation at any time, without prejudice.

(2) Exculpatory language through which the subjects are made to waive, or appear to waive, any of their legal rights, including any release of any person, organization, or agency from liability for negligence, is contrary to Air Force policy and expressly prohibited.

(3) Consent by a subject or a legally authorized representative shall be obtained in writing.

(a) The consent form may be read to the subject or a legally authorized representative, but in any event the subject or a legally authorized representative must be given adequate opportunity to read it and to ask any questions they might have. This consent form must then be signed by the subject or a legally authorized representative, and by a witness not directly involved in the project.

(b) Sample copies of the consent form as approved by the Human Use Committee shall be retained in the records, as well as the actual consent forms for each subject.

(c) It should be emphasized that the essence of voluntary, informed consent is a full discussion of the nature of the project by a scientifically competent person with the prospective human subject, in the presence of a witness not directly involved in the project. The consent form is only a testimony to the fact that such a full and responsive discussion took place.

(4) The use of implied consent is expressly prohibited.

(5) The sample consent form shown in attachment 1 should be modified as necessary to make it fully responsive to the principles outlined here. The use of this sample form, or a modified version of it, is mandatory for an in-house project (see section E) but is only advisory for a contractor project (see section F), since the contractor retains primary responsibility for the rights and welfare of all human subjects in projects which he or she conducts.

b. **Project Standards.** The following standards shall be adhered to in all cases:

(1) The project must contribute significantly to an approved Air Force research program, and have reasonable prospects of yielding important results, essential to such programs, which are not obtainable by other methods or means of study.

(2) Human subjects used will be kept to a minimum number which will reasonably achieve the required scientifically valid results.

(3) The project will be conducted so as to avoid all unnecessary physical or mental discomfort, suffering, or injury.

(4) Sufficient animal or laboratory experiments or other evaluations must have been completed if there is any inherent reason to believe that death or disabling injury is remotely possible, to give assurance of acceptable risk prior to use of human subjects.

(5) The degree of risk to be taken will never exceed that determined to be required by the urgency or importance of the Air Force research program to which the study is related.

(6) Proper preparations will be made, and adequate facilities provided, to protect the human subject against all reasonable foreseeable possibilities of injury, disability, or death.

(7) The project will be conducted only by persons possessing the requisite scientific qualifications. The highest degree of skill and care will be required during all stages of the study from persons who conduct or assist in the study.

(8) The human subject will be informed that any time during the course of participation he or she has the right to revoke consent, and withdraw from further participation without prejudice.

(9) Human subjects will have no physical conditions which will make participation more hazardous for them than it would be for normal healthy persons, unless such condition is a necessary prerequisite for the specific project involved. In any such case, the use of human subjects with such pre-existing conditions must be specifically approved by the Air Force Human Use Committee.

(10) The scientifically or technically qualified person conducting the project and each member of the research team, will be prepared to terminate the subject's participation at any stage if there is any reason to believe, in the exercise of good faith, superior skill, and careful judgment, that continuation is likely to result in injury, disability, or death to the human subject.

(11) There shall be no greater intrusion into the privacy of the human subject than is absolutely necessary for the conduct of the project involved.

c. **Debriefing of Subjects.** There should be a formal procedure for a post-project debriefing of subjects. This debriefing should fulfill an ethical obligation to prevent any misunderstanding about the nature of their participation or the results of it.

d. **Exceptional Circumstances.** Under exceptional circumstances it may be necessary to request an exception to one or more of the policies or procedures outlined in this regulation. If so, the request must give a full justification as to why such policies or procedures should be waived. All requests for a waiver shall be submitted through command channels to HQ USAF/SG, Bolling AFB, Wash DC 20332. Only the USAF Surgeon General can grant a waiver.

e. **Projects Conducted Outside the United States.** When a project is to be conducted outside the United States, its territories, or possessions, and involves the use of other than US personnel as subjects, all laws and customs of the country in which the project is to be conducted shall be complied with. In exceptional circumstances, where the laws or customs of the country involved would indicate that specific provisions of this regulation would not be acceptable, special permission may be granted to deviate from certain specific requirements of this regulation. Only the USAF Surgeon General can grant this type of deviation.

SECTION C — RESPONSIBILITIES

5. The Surgeon General:

a. Establishes an Air Force Human Use Committee at the Air Force Medical Service Center

(AFMSC). This committee will consist of representatives from the following offices: AFMSC/SGPC (2 representatives), AFMSC/SGPA (2 representatives), HQ AMD/RD (2 representatives), HQ AMD/JA (1 representative), 6570 ABG/HC (1 representative). The Director of Professional Services, AFMSC, will be the committee chairman and a representative from AFMSC/SGP will serve as the committee secretary.

b. Assures that the Director of Professional Services reviews all research projects submitted by organizational Human Use Committees for approval. The Director of Professional Services will:

(1) Convene a meeting of the Air Force Human Use Committee when he or she determines that review of the project by the committee is required.

(2) Notify, within 30 days of the receipt of the research project, the major command and the organization submitting the project for review, if it is approved or disapproved.

c. Convenes a meeting of the Air Force Human Use Committee upon receipt of any report of misadventure involving a human subject in a research project, or of any request for a waiver from this regulation.

d. Establishes a review board on the investigational use of drugs, in conformity with AFR 169-6. This board reviews, and may recommend approval by the Surgeon General of, all RDT&E projects involving the use of investigational drugs on human subjects.

e. Renders final decision on recommendations made by the Review Board, Investigational Use of Drugs.

f. Renders final decision on recommendations made by the Air Force Human Use Committee.

6. Each Major Command:

a. Makes sure that each organization engaged in an in-house research project involving human subjects establishes a Human Use Committee. Projects that are identified by the organization committee as placing human subjects at risk must be submitted to the Air Force Human Use Committee for review and approval before initiating the project. An information copy of the project proposed will be sent to the major command surgeon.

b. Makes sure that all contractual projects involving human subjects will comply with the provisions of section F of this regulation.

c. Refers to AFMSC/SGP, through medical staff channels, any controversial projects on which the local Human Use Committee desires additional guidance on the use of human subjects at risk.

SECTION D — COMMANDERS RESPONSIBILITIES

7. **In-House Activities.** Each commander who is responsible for an in-house project that involves human subjects will, in accordance with section E, establish a Human Use Committee to:

- a. Review all research projects (at the protocol level) that involve human subjects.
- b. Submit all projects that involve human subjects at risk to the Air Force Human Use Committee for approval prior to beginning the project with an information copy to the major command surgeon. Documentation submitted for review will include the project protocols, minutes of the local Human Use Committee review, consent forms, and commander's recommendation for approval.

8. Reporting Procedures:

a. Each commander will report directly to AFMSC/SGP, Brooks AFB, TX 78235, within 24 hours, any misadventure that is coincident with, or possibly results from using human subjects in in-house research projects with a copy to HQ USAF/SG. An information copy is sent to the appropriate major command surgeon. The report should contain the following information:

- (1) A brief description of the extent and severity of the injuries.
- (2) Identity of the individuals injured (including name, age, sex, pay grade and SSAN).
- (3) Explanation of how the injuries occurred.
- (4) Summary of the project protocol.
- (5) Time, date, place of incident.
- (6) Name, address, and telephone number of the organizational official authorized to provide additional information.

b. If the misadventure is life-threatening, or otherwise serious, the commander will:

- (1) Transmit initial reports as quickly as feasible by electrical means to the above addresses.
- (2) Within 15 days of the misadventure, submit a complete narrative report to the above addresses.

9. **Contractual Activities.** Each commander that is responsible for contractual research projects involving human subjects shall comply with the policy and procedure outlined in section F of this regulation. All contractual efforts involving the use of investigational drugs on human subjects shall be approved by the Air Force Surgeon General through AFMSC/SGP prior to beginning the project.

SECTION E — IN-HOUSE STUDIES

10. **General Guidance.** This section prescribes policies and procedures, in addition to those contained in other sections, which apply in all cases wherein a project involving the use of human subjects is performed under the direct supervision or control of USAF personnel. No research project involving the use of human subjects will be initiated until all of the requirements of this regulation have been fully met.

11. **Additional Safeguards.** As added protection for human subjects, the following safeguards shall be required:

- a. A physician, military or civilian, will be responsible for the medical care of all human subjects at risk. Before the project begins, the physician will conduct and record such examinations and evaluations of the human subject as professional judgment dictates. This physician should, whenever possible, be other than the project leader. The physician will have full authority to terminate the subject's participation at any time it is believed death, injury, or bodily harm is likely to result.
- b. All apparatus and instruments necessary to deal with likely emergencies, and personnel trained in their use, deemed necessary by the responsible physician, will be available at all times.
- c. Required medical treatment, including hospitalization if necessary, will be provided to any human subject who requires such treatment or hospitalization as a result of his or her participation, as soon as such need is recognized.

12. **Human Use Committees.** Each organization which directly conducts, or intends to conduct, research projects involving human subjects, must provide for the establishment of a Human Use Committee.

13. **Committee Composition.** Each Human Use Committee must be composed of not less than five persons with appropriate background to assure complete and adequate review of each proposed project being considered. The chairman must be a physician.

- a. The committee must be sufficiently qualified through the maturity, experience, and expertise of its members and the diversity of its membership, to ensure respect for its advice and counsel for safeguarding the rights and welfare of human subjects.
- b. In addition to possessing the professional competence necessary to provide initial and continuing review of each proposed study, the committee must be able to ascertain the acceptability of the proposed study in terms of applicable laws and

regulations, standards of professional conduct and practice, moral and ethical standards, and community attitudes. The committee must, therefore, include persons whose experience and expertise are in these areas, including whenever possible, at least one lawyer, one clergyman, and two physicians.

c. No committee shall consist entirely of members of a single profession. No committee shall consist entirely of members of the laboratory concerned. No member of such committee shall be involved in either the initial or continuing review of any project in which he or she has a direct interest, except to provide information requested by the committee.

14. Committee Review. No project involving human subjects shall be submitted to the Air Force Human Use Committee unless it has first been reviewed and recommended for approval by the organization committee. This review shall determine whether:

a. The human subjects are at risk as defined by this regulation. Projects that do not involve human subjects at risk are not required to be submitted to the Air Force Human Use Committee for approval nor is written informed consent required. However, these projects must be reviewed by the organizational Human Use Committee to ascertain that, in fact, such projects do not place human subjects at risk.

b. The risks to the subject are so outweighed by the importance of the knowledge to be gained as to warrant a decision to allow the subject to accept these risks.

c. The rights and welfare of any such subject will be adequately protected.

d. Legally effective informed consent will be obtained by adequate and appropriate methods in accordance with the provisions of this regulation.

e. The conduct of the project will be reviewed by the committee at timely intervals.

15. Appropriated Fund Civilian Employees. When civilian employees of the Department of the Air Force volunteer to participate as human subjects, the following provisions shall apply:

a. All questions concerning hours of duty, pay, leave, compensation, claims, or application of other civilian personnel regulations to employees' voluntary services, will be forwarded through appropriate channels to HQ USAF/DPC, Wash DC 20330.

b. Such employees are entitled to medical care in Air Force medical treatment facilities as outlined in AFR 168-6.

16. Irregular or Fee-Basis Employees. Intermittent services of such employees are authorized. Whether such employees can be used as human subjects in any study will depend upon the statutory authority for their employment and the provisions of their employment agreement in each case. Questions concerning injury compensation should be forwarded through appropriate channels to HQ USAF/DPC, Wash DC 20330. Such employees are entitled to medical care in Air Force treatment facilities as outlined in AFR 168-6.

17. Contractor's Employees. Contractor's employees may participate as human subjects in studies performed under the direct supervision or control of Air Force personnel. It is the responsibility of the contracting officer to determine whether the terms of the contract permit such participation. Such employees are entitled to medical care in Air Force medical treatment facilities in accordance with AFR 168-6.

18. Military Personnel. Military personnel may participate as human subjects. Additional compensation for such services is prohibited, except as specifically authorized by law (for example, furnishing blood (24 USC 30), duty inside a high or low pressure chamber (37 USC 301a(9)), duty as a human test subject in thermal stress studies (37 USC 301a(11)), and duty as a human test subject in acceleration or deceleration stress studies (37 USC 301a(10))).

19. Other Persons Entitled to Medical Care. Retired military personnel, dependents, and others routinely entitled to medical care in military medical facilities, may participate as human subjects. Such persons may be compensated for these services as authorized by applicable directives (45 Comp Gen 649), except that retired officers of a regular component are subject to the 30-day limitation of 5 USC 5532(e)(2).

20. Private Citizens. It is the policy of the United States not to accept voluntary services, ostensibly without compensation, when such services may provide a basis for a future claim against the government for the value of the services provided.

a. Accordingly, any such services should be accompanied by a statement to the effect that the individual will not receive or become entitled to any compensation for these services.

b. Such individuals may, however, enter into an independent contractor relationship and participate for compensation as authorized by applicable directives (45 Comp Gen 649). Such individuals are entitled to medical care in Air Force medical treatment facilities as outlined in AFR 168-6.

21. Maintenance of Records. All records documenting review, approval, conduct and results of a project involving human subjects at risk must be maintained permanently by the performing organization since such records represent an irreplaceable source of medical knowledge and are required for medico-legal deliberations.

a. All constitutive Human Use Committees will maintain formal minutes of all meetings. These minutes will include discussions, recommendations, and voting records of individuals.

b. A copy of the signed consent form shall be filed in the subject's medical records, together with enough documentation to clearly identify the project in which the subject participated, any drugs administered and significant observations to include effects, and any medical tests or laboratory procedures performed.

c. The original signed consent form must be filed with the approved protocol in the research project records.

SECTION F — CONTRACTOR STUDIES

22. General Guidance. This section prescribes policies and procedures that apply in all cases in which research involving the use of human subjects is to be performed by a contractor. No contract may be awarded for any research involving the use of human subjects until the requirements of this regulation have been fully met.

a. Safeguarding the rights and welfare of all human subjects in activities supported under contracts with the Air Force is primarily the responsibility of the contractor. In order to provide for the adequate discharge of this responsibility, no contract shall be awarded which involves the use of a human subject unless the contractor's Human Use Committee has reviewed and approved the proposed project, as directed by this regulation. This review shall determine whether:

(1) The risks to the subject are so outweighed by the importance of the knowledge to be gained from the project as to warrant a decision to allow the subject to accept these risks. (Contractors will use the definition of risk stated in this regulation.)

(2) The rights and welfare of any such subjects will be adequately protected.

(3) Legally effective informed consent will be obtained by adequate and appropriate methods as outlined in this regulation.

(4) The conduct of the project will be reviewed at timely intervals.

b. No contract involving a human subject will be

awarded to an individual unless he or she is affiliated with, or sponsored by, an organization that can, and does, assume responsibility for that subject.

23. Submission of Assurances. Any organization, other than an agency of the Federal government, applying for a contract involving a human subject must provide written assurances that it will abide by the policy for the protection of human subjects as stated in this regulation.

a. If the organization currently has on file with the Department of Health, Education and Welfare (DHEW) an approved general assurance, as provided for in Part 46 of Title 45 of the Code of Federal Regulations, this may be done by submitting to the contracting agency a statement that such general assurance shall apply equally to the study to be performed under the contract with the agency (attachment 2).

b. If the organization does not currently have an approved general assurance on file with DHEW, then a special assurance must be negotiated with DHEW before the contract is awarded.

24. Certifications. Each proposal involving a human subject at risk, as determined by the contractor's Human Use Committee, must contain a copy of the certification form as shown in attachment 2.

25. Contractor's Responsibilities. The contractor bears the ultimate responsibility for the health, safety, and welfare of all human subjects involved in research carried out as a part of the contract. This includes responsibility for insuring that all necessary clearances, permits, and coordination with other agencies, whether Federal, State or local, have been properly effected.

a. Contractor's shall notify the USAF contracting agency of any misadventure that is coincident with or possibly results from using human subjects in a USAF-sponsored research project. The notification should give this information:

(1) A brief description of the extent and severity of the injuries.

(2) Individuals injured (including name, age, sex, occupation, and SSAN).

(3) Explanation of how the injuries occurred.

(4) Summary of the project protocol.

(5) Time, date, and place of the incident.

(6) Name, address, and telephone number of the organizational official authorized to provide additional information.

8. The contracting agency must notify AFMSC/SGP, Brooks AFB TX 78235, of all reported contractor misadventures, with a copy to HQ USAF/SG.

c. A copy of all contractor records documenting

review, approval, conduct, consent forms, and results of a contract involving human subjects at risk be forwarded to the sponsoring Air Force organization for permanent storage at the end of the project.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

LEW ALLEN, JR., General, USAF
Chief of Staff

VAN L. CRAWFORD, JR., Colonel, USAF
Director of Administration

SUMMARY OF CHANGES

This regulation has been revised to provide AF guidance consistent with Department of Health, Education and Welfare Regulations and established policy on the use of human subjects in in-house research projects and contractual efforts. It requires the establishment of Human Use Committees (para 12) to review all in-house research projects involving human subjects; elaborates on the administration of informed consent (para 4); defines human subjects at risk and other terms (para 3); and requires the submission of research projects to the USAF Surgeon General for approval (para 7).

CONSENT FORMS

1. Each consent form must be tailored to meet the specific conditions involved, considering the nature of the research, the age and sex of human subjects, compensation or lack thereof, special requirements, and other factors.

2. The following additional clauses or modifications thereof, should be added to the consent form as appropriate:

a. "This project involves the use of the investigational drugs _____. I understand that such drugs have previously been used for _____.

I also understand that although such drugs may have been previously used in the manner described on the reverse of this page, they have not yet been approved by the Food and Drug Administration for use in this manner by the general public".

b. "I understand that for my participation in this project I shall be entitled to payment as follows: _____.

_____ and further understand that in the event I revoke my consent or my participation is terminated for any other reason, I shall be entitled to receive _____".

I Atch
Sample Consent Form

SAMPLE CONSENT FORM

I, _____, having full capacity to consent, do hereby volunteer to participate in a research study entitled:

_____ under the direction of _____

The implications of my voluntary participation; the nature, duration and purpose; the methods and means by which it is to be conducted; and the inconveniences and hazards which may reasonably be expected have been explained to me by _____, and are set forth on the reverse side of this Agreement, which I have initialed. I have been given an opportunity to ask questions concerning this research project, and any such questions have been answered to my full and complete satisfaction. I understand that I may at any time during the course of this project revoke my consent, and withdraw from the project without prejudice; however, I may be required to undergo certain further examinations, if in the opinion of the attending physician, such examinations are necessary for my health or well being.

Signature

Date

I was present during the explanation referred to above, as well as the volunteer's opportunity for questions, and hereby witness the signature.

Signature

Date

On this side of the Volunteer Agreement, the principal investigator shall set forth full details concerning the research project, insofar as such would affect or influence the tentative subject in any way. This explanation should be worded in non-technical language so that it can be *clearly understood* by a subject who has no particular familiarity with scientific terminology. It is suggested that when technical terms are necessary, they should be defined in the space below the explanation. The subject should place his/her initials at the end of the last line of explanation.

A proper explanation should, at a minimum, provide the answers to the following questions:

1. What will be administered or done to the subject?
2. How long will the subject's participation last?
3. To what tests or examinations will the subject be required to submit?
4. Why is the project being conducted?
5. Has this project study been done previously, and, if so, with what results?
6. What inconveniences or discomforts is the subject likely to experience?
7. What risks or hazards can be reasonably anticipated?
8. What steps will be taken to prevent or minimize these risks or hazards?
9. What benefits, if any, may the subject expect from participation in this study?
10. What appropriate alternative procedures, if any, might be advantageous to the subject?

CONTRACTOR ASSURANCES

The US Air Force requires assurances from contractor organizations conducting research involving human subjects that they will carry out initial and continuing review of all such research in accordance with the policy and instructions contained in Section 46 of Title 45 of the Code of Federal Regulations (CFR) and USAF Regulation 169-3. Certification of the performance of the initial review and approval of the project by the contractor's Human Use Committee should accompany the proposal when submitted, but in any event must be submitted prior to actual award of a contract or grant. Each organization submitting a research proposal involving human test subjects must include one of the following applicable statements in the proposal:

A. This proposal includes research involving human subjects at risk as defined in AFR 169-3. Our organization has an accepted and currently valid general assurance on file with DHEW. Our Human Use Committee has reviewed and approved this research protocol on _____, in accordance with the assurance provided to DHEW, and will provide for continuing review as specified in the general assurance.

B. This proposal includes research involving human subjects at risk as defined in AFR 169-3. Our organization has an accepted and currently valid general assurance on file with DHEW. Our Human Use Committee has not yet reviewed this research protocol, but will do so on or about _____ in accordance with the assurance provided to DHEW. It is understood that a certification of such review being completed will be required before the contract or grant can be awarded.

C. This proposal includes research involving human subjects at risk as defined in AFR 169-3. Our organization does not have an accepted and currently valid general assurance on file with DHEW. A special assurance has been granted by DHEW for completion of this project.

D. This proposal does not include research involving human subjects at risk as defined in AFR 169-3, and we hereby certify that human subjects at risk will not be used in any research performed under this grant or contract without proper assurances.

4 November 1977

Medical Education and Research

CLINICAL INVESTIGATION AND HUMAN TEST SUBJECTS IN THE MEDICAL SERVICE

This regulation explains how the Air Force Clinical Investigation Program is sponsored and supported at Medical Service treatment facilities, clinical research laboratories, and other medical support centers. It establishes policies and procedures for using human subjects as volunteers in tests or as "controls" in the Medical Service. This regulation does not apply to the use of human subjects in research, development, test and evaluation (RDT&E) programs which is guided by AFR 80-33. It implements DOD Directive 6000.4, 16 April 1976; DOD Directive 6015.3, 19 January 1968; and, in conjunction with AFR 80-33, DOD Instruction 5030.29, 12 May 1964.

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1. Application:

a. This Regulation Applied To:

(1) Investigations or research involving the Biological, behavioral, or psychological study of a person's body or surroundings, conducted by or in collaboration with Air Force Medical Service personnel, generally in Air Force Medical Service treatment and clinical investigation facilities, except as noted in paragraph 1b. This includes but is not limited to medical or surgical procedures, withdrawal or removal of body tissue or fluid, administration of all chemical or biological substance, deviation from normal diets or daily regimens and active manipulation of bodily processes, behavior, or environment. Examples are studies which represent a deviation from accepted practice but which are specifically aimed at improved diagnosis, prevention, or treatment of a specific illness in a patient; studies which are related to a patient's

disease but from which he or she will not necessarily receive any direct benefit; and investigative, nontherapeutic research in which there is no intent or expectation of treating an illness from which the patient is suffering or in which the subject is a "normal control" who is not suffering from an illness but volunteers to participate for the potential benefit of others. Medications whose administration constitutes clinical investigation or research in the sense of this regulation are those which are neither listed in the US Pharmacopoeia, National Formulary or Accepted Dental Remedies nor approved for general use by the Food and Drug Administration (FDA).

(2) Field trials of vaccines and prophylactic drugs.

(3) Use of FDA-approved drugs in a manner not provided for in the drug labeling. Use of such a drug for therapeutic effects that are widely reported and generally accepted is within the scope of normal medical practice and does not constitute clinical investigation or research in the sense of this regulation.

b. This Regulation Does Not Apply to:

(1) Treatment administered with the consent of the Director of Base Medical Services as a life-sustaining measure.

Supersedes AFR 169-6, 13 September 1976. (For summary of revised, deleted, or added material, see signature page.)

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Approving Director: Brig Gen Ernest J. Clark

Writer-Editor: M.M. Green

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(2) The use of human subjects in the Air Force RDT&E program provided:

(a) Diagnostic and treatment procedures use techniques of therapeutic regimens conforming to accepted professional practice.

(b) All medications used are listed in the US Pharmacopoeia, the National Formulary or the Accepted Dental Remedies, or are approved for general use by the FDA.

(3) Studies involving the following types of data collection, provided they do not result in publishing the data in a manner that identifies specific individuals:

(a) Statistical information from patients' records.

(b) Passive observation of biological, physiological, or behavioral parameters.

(c) Analysis of excreta.

(d) Analysis of any specimen of tissue or body fluid which would have been collected during normal medical or surgical management of a patient and did not subject the patient to additional or duplicate tests, procedures, or treatments.

(e) Necropsy material.

(4) Purely diagnostic use of radiopharmaceuticals that are obtained commercially, have completed FDA Phase II testing and are used in a widely reported and generally accepted manner, is within the scope of normal medical practice, and does not constitute clinical investigation or research in the sense of this regulation. Innovative uses of radiopharmaceuticals require approval as clinical investigative studies.

2. Terms Explained:

a. **Clinical Investigation.** Research generally involving humans or animals (AFR 169-2) performed by or in collaboration with Air Force Medical Service personnel, usually in medical service facilities.

b. **Principal Investigator.** A member of the medical service who initiates a proposal for and conducts a clinical investigation after approval by the Surgeon General.

c. **Associate Investigator.** A member of the medical service who collaborates with the principal investigator.

d. **Clinical Investigation Facility.** A capability established to assist in conducting the clinical investigation and teaching missions in US Air Force medical centers. This capability consists of personnel, equipment and facilities and is maintained at a relatively constant level on a continuing basis.

e. **Clinical Research Bed.** A clinical research bed may be designated only by HQ USAF. The following criteria govern the designation of a hospital bed as a clinical research bed:

(1) The investigation must be conducted in a controlled hospital environment over a protracted (6 months or greater) period of time.

(2) The bed occupant requires and receives 24 hours-a-day observation.

(3) It is not included in the overall operating bed allocation of the facility.

(4) It is not considered a bed for domiciliary or convalescent patients.

(5) It is not used for patients admitted on a routine basis.

(6) Its use does not infringe upon restrictions on funds cited in paragraph 5.

f. **Institutional Review Committee.** A formal committee established at the medical facility to review proposed studies. The committee evaluates the scientific merit and necessity of all proposed investigations, and the acceptability of studies involving human experimentation, in terms of relevant law, community values, ethical standards, and protection of human subjects. The chairman of the committee must be a physician (preferably the Director of Hospital Services), and there must be enough other physicians or scientists to ensure proper evaluation of a variety of studies. Review of the acceptability of human studies must be delegated to a Human Experimentation Subcommittee, chaired by a physician, which has at least three lay members, including at least one lawyer and one clergyman. A quorum consists of the chairman plus two lay members. Approval of the acceptability of human studies requires unanimous vote of the subcommittee; approval of scientific merit and necessity may be by majority vote of the parent committee. Overall approval requires approval of both aspects. No investigator may sit on the committee or subcommittee while his or her research proposal is under consideration.

g. **Minor.** Any person, other than active duty military personnel, who has not attained the legal age to participate in research as determined under the applicable law of the jurisdiction in which such research is to be conducted.

h. **Informed Consent.** Consent may take two forms as outlined below:

(1) **Subject Consent.** Informed consent given by a prospective human subject who has the legal capacity to give such consent. Generally, a minimum age of 21 years must be reached before an individual is qualified to give consent except in those jurisdictions where a lesser age is specified. For active duty military personnel participating in an in-house study, there is no minimum age limitation. Consent must be given voluntarily, freely, and without any use of force, fraud, deceit, duress, constraint, coercion, or unlawful or improper inducement. The subject must possess sufficient understanding of the implications of his

or her participation in the study in order to make an informed decision. The individual must be told as much about the nature, duration and purpose of the study as will not invalidate the results, and about the inconvenience and hazards which can reasonably be anticipated.

(2) **Third Party Consent.** Consent given by the parents, legal guardian, next of kin, or other legally authorized third party representative of the prospective human subject's welfare and interest. Third party consent may be used if the prospective human subject is incapable of giving consent. It is subject to all of the same criteria for full and complete disclosure as is the subject's own consent, and must be freely given.

i. **Institutionalized Mentally Infirm Person.** Any person who is confined, whether by court order, voluntary commitment, or otherwise, in an institution for the care or treatment of the mentally ill, the mentally retarded, the emotionally disturbed, the psychotic, the senile, and others with impairments of similar nature, regardless of whether or not such person has been determined to be legally incompetent and regardless of whether or not he or she is capable of giving legally effective consent.

j. **Mentally Disabled Person.** Any person who, due to mental illness, mental retardation, emotional disturbance, psychosis, senility or other impairment of a similar nature, is not capable of giving legally effective informed consent.

k. **Prisoner.** Any person who is involuntarily confined in a penal or correctional institution whether such institution is for the confinement or rehabilitation of juvenile offenders, for persons charged with or convicted of civil or criminal offenses for other purposes.

3. Air Force Policy:

a. **Clinical Investigation.** The Air Force encourages and supports clinical investigations that contribute to the progress of the biomedical sciences and to the efficiency of the US Air Force Medical Service. The requirements are that an investigative project be:

(1) Related to medical, dental, veterinary, or biomedical sciences practice.

(2) Conducted in compliance with this regulation.

(3) Performed by members of the Medical Service in a manner that does not compromise the performance of their assigned duties.

b. **Human Subjects.** The following requirements apply to using human volunteers in medical service treatment facilities and clinical investigation facilities:

(1) The rights and welfare of the volunteer must be safeguarded throughout the investigation.

The risks to the volunteer must be outweighed by potential benefits in terms of medical advances.

(2) The nature of the investigation must require participation by a human test subject. It is mandatory that all necessary preliminary tests with laboratory animals and human simulators, insofar as possible, be conducted and evaluated before a human test subject is used.

(3) Research studies using volunteers must be conducted to avoid all unnecessary physical or mental discomfort. The number of volunteers must be kept to a minimum consistent with the particular study. Studies are not permitted if there is significant probability that disease, injury, or death could occur. Proper preparations must be made and adequate facilities provided to afford the volunteer the maximum possible protection against injury, disability or death. Before the investigation or test begins, the physician or dentist conducts, or causes to be conducted, and records, examinations and evaluations of the volunteer.

(4) A medical or dental officer other than the investigator is responsible for assuring proper conduct of the experiment and the professional care of the volunteer when circumstances warrant. The physician, dentist, or investigator may terminate the study at any time. The volunteer has the right to revoke his or her consent at any time and withdraw without prejudice from the experiment. The volunteer must be fully informed of these facts and procedures.

(5) The principal investigator, who is normally either a physician, dentist, or biomedical scientist, must ensure that the volunteer has the capacity to consent, is able to exercise true freedom of choice without overt or hidden persuasion, and is fully informed.

(6) Before a volunteer is permitted to give consent, the investigator must accurately explain the investigation in language the volunteer can understand. The explanation must be made a part of the informed consent form. The explanation must include at least:

(a) The purpose, nature, and duration of the study.

(b) A lay explanation of the procedures to be followed and their purposes, including identification of any experimental procedures.

(c) A description of the attendant discomforts and risks that can reasonably be expected.

(d) A description of any benefits that can reasonably be expected.

(e) A disclosure of any appropriate alternative procedures that might be advantageous to the subject.

(f) An offer to answer any inquiries concerning the procedures.

(g) An instruction that the subject is free to withdraw his or her consent and to discontinue participation in the project or activity at any time.

(7) Exculpatory language through which the subjects are made to waive, or appear to waive, any of their legal rights, including any release of any person, organization, or agency from liability for negligence, is contrary to Air Force policy and expressly prohibited.

(8) The volunteer must give consent in writing. A copy of the voluntary consent form is attached to the protocol. The consent form must be signed in the presence of at least one witness who attests the volunteer's signature by signing in the place provided. The volunteer's social security number must also be entered on the form under the volunteer's signature. For dependents without social security numbers, the military sponsor's name and social security number should be entered on the form. In addition, the officer who gives the advice that forms the basis for the informed consent must also sign the form in the presence of the same witness. The completed consent form is filed in the volunteer's medical records. Copies may be retained by the investigator and the Institutional Review committee.

(9) Forensic medicine consultation must be obtained on each protocol informed consent form.

(10) With the exceptions noted in paragraph 1b, HQ USAF/SGPR review and approval is required before performing research and investigations that use or collaborate with medical service treatment facilities, clinical laboratories, or personnel.

c. Using Minors as Human Subjects:

(1) Minors are not permitted to participate as a human subject unless the nature of the research involved is such that it would be impossible or unmeaningful if participation were restricted solely to adults, or if other special considerations are involved. Convenience does not suffice as justification for using a minor as a human subject.

(2) A minor may not participate as a human subject unless:

(a) The minor's parents, guardian, or other legally authorized representative has given effective third party consent under conditions which meet the legal requirements of the place in which such consent is secured.

(b) The proposed research is concerned with:

1. The diagnosis, treatment, prevention, or etiology of conditions not usually encountered in adults.

2. Any other condition from which the minor is suffering provided there is a direct potential benefit to the minor and adequate prior

testing has been accomplished to give assurance of acceptable risk.

3. Information which cannot be obtained from any other class of subject.

(c) The traditional requirement of securing the consent of parents or guardian before performing a medical procedure on a minor should be viewed as protective rather than coercive. Therefore, in addition to securing the required third party consent form, parent (both parents if practical), guardian, or other legally authorized representative, the minor (depending upon maturity), should also be consulted. Clearly, infants of tender years have neither the comprehension nor judgment to enable them to make a meaningful determination. Older children might well be able to comprehend sufficiently to understand what it is that they are subjected to and, depending upon the circumstances, should in many cases be given the right to refuse to participate. As minors approach the age of maturity, the ability to comprehend will likely become closer and closer to that of an adult and it would be improper to permit them to participate unless they had also given subject consent. All of the above considerations apply to maturity of judgment and comprehension, and not solely to chronological age. Therefore, no hard and fast rules can be laid down, and careful consideration must be given to provisions to ensure compliance with these principles. Because legal considerations are important, it is recommended that the local Staff Judge Advocate be consulted on this matter.

d. Use of Mentally Disabled or Institutionalized Mentally Infirm Persons as Human Subjects:

(1) It is not appropriate to permit a mentally disabled or institutionalized mentally infirm person to participate as a human subject unless the nature of the research involved is such that it would be impossible or meaningless if such subjects were excluded. Convenience is not sufficient as a justification for using any such person as a human subject.

(2) A mentally disabled or institutionalized mentally infirm person may not participate as a human subject unless:

(a) Legally effective subject consent has been obtained, or where the subject is legally incompetent, the subject's legally authorized representative has given effective third party consent according to local law.

(b) The proposed research is concerned with:

1. The diagnosis, treatment, prevention, or etiology of the particular impairment with which the individual is afflicted.

2. Any other condition from which he or she is suffering, provided there is a direct potential benefit to the individual and adequate prior testing

has been accomplished to give assurance of acceptable risk.

3. The effect of institutional life on the institutionalized mentally infirm subject, and involves no appreciable risk to the subject.

4. Information which cannot be obtained from any other class of subject.

(3) If the mentally disabled or institutionalized mentally infirm person appears to have sufficient mental capability to comprehend what is proposed and able to express willingness to participate, consent should also be obtained.

e. **Use of Prisoners as Human Subjects.** A prisoner is not permitted to participate as a human subject unless the proposed clinical investigation is concerned with the diagnosis, treatment, prevention, or etiology of the particular impairment with which the prisoner is afflicted and there is a direct potential benefit to the prisoner.

4. Assignment of Responsibilities:

a. Principal Investigator:

(1) Prepares the proposal for clinical investigation and submits it to the medical facility commander through the medical facility's Institutional Review Committee (attachment 1 format). If the investigation concerns evaluation of a new drug, the investigator also forwards completed appropriate Food and Drug Administration Forms (attachment 1, paragraph 7). If the investigation involves animals, the investigator must include in the protocol, the rationale for using the animal species involved and assure compliance with AFR 169-2 as it pertains to the care and handling of animals.

(2) If required by the investigation, requests the designation of clinical research beds.

(3) Ensures that the policies outlined in paragraph 3 are complied with during the course of the investigation or study.

(4) Is responsible for performing and supervising the conduct of the investigation and recording data in appropriate records relating to the investigation. These records include a notebook which lists all experiments performed, dates performed, quantity of drugs administered, names of participants or animal identifications, and test results. A copy of significant notebook entries will be given to the Institutional Review Committee for inclusion in the clinical investigation protocol records (paragraph 9) at the conclusion of the project.

(5) Is responsible for submitting all reports on investigational drug studies required by the sponsoring pharmaceutical company. For FDA Phase I, II, and III investigational drug studies, the investigator ensures that a record separate from the clinical records is maintained. The record includes at least: a list of subjects receiving the drug; the name, lot number, date and quantity of the drug;

and details of the clinical observations, tests, and laboratory procedures.

(6) Is responsible for annotating in the individual's medical or dental records, whichever is appropriate, any clinically significant complications/findings resulting from participation in the clinical investigation study.

b. Department Chairman:

(1) Assists departmental staff in defining the boundaries between biomedical or behavioral research and the accepted and routine practice of medicine (para 1).

(2) Approves protocols proposed by department staff.

c. Institutional Review Committee:

(1) Reviews all clinical investigation protocols and determines their scientific merit and/or educational quality.

(2) Renders scientific and professional judgment about the use of animal models and selecting the appropriate species for the investigation (AFR 169-2).

(3) Ensures that clinical investigation protocols involving animals provide for proper care and humane treatment (AFR 169-2).

(4) Reviews the conduct of the study at timely intervals.

(5) Forwards their approval or disapproval to the medical facility commander.

(6) Establishes a Human Experimentation Subcommittee to review and approve all studies involving human subjects. This review must determine whether:

(a) The risks to the subject are outweighed by the benefit to the subject or whether the importance of the knowledge to be gained warrants a decision to allow the subject to accept these risks.

(b) The rights and welfare of any subject are adequately protected.

(c) Legally effective written informed consent is obtained by adequate and appropriate methods according to this regulation.

(7) Maintains records of all clinical investigation protocols (paragraph 9).

(8) Maintains formal minutes of all committee meetings including the Human Experimentation Subcommittee. These minutes will include discussions, recommendations, and voting records of individuals.

d. Medical Facility Commander:

(1) Establishes an Institutional Review Committee.

(2) Approves or disapproves clinical investigation proposals after they are reviewed by the Institutional Review Committee. Approval normally is withheld if the principal investigator is likely to be transferred before the estimated completion date of the project.

(3) Assures compliance with AFR 169-2 if animals are to be used.

(4) If circumstances warrant, appoints a medical or dental officer other than the investigator (and who is neither directly associated with the investigation nor under the control of the investigator) to be responsible for advising the volunteer.

(5) Assures compliance with paragraph 3.

(6) Forwards the original and one copy of approved clinical investigation proposals (including a copy of the voluntary consent statement required if human test subjects are involved) direct to HQ USAF/SGPR, Forrestal Building, Wash DC 20314 for approval. Sends one information copy each to the command surgeon and to AMD/RD, Brooks AFB TX 78235.

(7) Ensures that approval is received from the Office of the Surgeon General before initiating the investigation. Assures compliance with all changes directed by the Surgeon General's Clinical Investigation Committee.

(8) Assumes responsibility for procuring the proper utilization of equipment and funds allotted after receiving the approval of the Surgeon General.

(9) Facilitates the conduct of approved clinical investigations.

(10) Ensures that any significant deviation from the approved protocol is not undertaken until approval is obtained from the Surgeon General's Clinical Investigation Committee.

(11) Submits the following reports of each clinical investigation to HQ USAF/SGPR, Forrestal Building, Wash DC 20314 with information copies to the command surgeon and to AMD/RD, Brooks AFB TX 78235.

(a) Narrative summaries of progress and findings, required at least every 6 months (attachment 2). A separate report must be submitted on each clinical investigation study.

(b) A formal and comprehensive report of the findings and conclusions if the investigation is completed or terminated before completion; if indicated, makes suggestions for application and possible additional research.

(c) Two copies of any abstract, oral presentation, technical report, or journal paper that is based in whole or in part on the clinical investigation when it is published or presented.

(12) If the principal investigator is reassigned, the medical facility commander:

(a) Arranges for continuing the project by a new principal investigator if practicable.

(b) Submits to HQ USAF/SGPR, Forrestal Building, Wash DC 20314 (with information copies to the command surgeon and to AMD/RD, Brooks AFB, TX 78235) a narrative summary concerning the status of the clinical investigation and the actions taken. If the project must be terminated, a

formal comprehensive report of findings to the date the project was terminated is required.

e. The Surgeon General:

(1) Appoints a Clinical Investigation Committee to review and approve or disapprove all clinical investigation proposals not involving investigational use of drugs. The Clinical Investigation Committee also serves as the Review Board. Investigational Use of Drugs, which reviews and may recommend approval by the Surgeon General of clinical investigation proposals involving investigational new drugs, including proposed field trials of vaccines and prophylactic drugs. Modifications of the proposals and resubmission may be suggested.

(2) Renders final decision on recommendations made by the Review Board. Investigational Use of Drugs.

(3) Authorizes or disapproves the designation and use of clinical research beds for a particular investigation.

(4) Notifies AMD/ACB, Brooks AFB TX 78235, of all approved proposals so that necessary funding documents may be issued.

(5) Monitors the Air Force Clinical Investigation Program.

f. Aerospace Medical Division (AFSC):

(1) Budgets and makes funds available for purchasing supplies and equipment and investment equipment to support individual clinical investigations approved by the Surgeon General.

(2) On occasion, may furnish equipment required in approved clinical investigation projects. Items of equipment to be used in approved tasks under this regulation are exempt from procedures in AFM 67-1, volume V, chapter 18.

g. Air Training Command. Establishes and operates a clinical investigation facility in conjunction with the USAF Medical Center Keesler.

h. Military Airlift Command. Establishes and operates a clinical investigation facility in conjunction with the David Grant USAF Medical Center.

i. Air Force Systems Command. Establishes and operates a clinical investigation facility in conjunction with the Wilford Hall USAF Medical Center.

j. Air Force Logistics Command. Establishes and operates a clinical investigation facility in conjunction with the USAF Medical Center Wright-Patterson.

5. Budgeting and Funding:

a. Operations and maintenance funds are used for operating the clinical investigation facilities at Wilford Hall USAF Medical Center, USAF Medical Center Keesler, USAF Medical Center Wright-Patterson and David Grant USAF Medical Center. The budgeting and funding of this program at each of

these medical centers is the responsibility of the major command concerned.

b. Operations and maintenance funding for all approved clinical investigations to be undertaken by a Principal Investigator are programmed and budgeted by the Aerospace Medical Division. Funds for such clinical investigations normally are not used for hiring additional personnel or for TDY travel. However, if such hiring is authorized exceptionally by HQ USAF/SGPR, clerical, technical or professional personnel who are hired full or part time to aid in a clinical investigation project may not be otherwise employed within the medical treatment facility or the base.

c. Investment equipment requirements not expressly identified as a part of a specific clinical investigation proposal are submitted to the major command as part of the base medical services annual investment equipment budget. Investment equipment items which are specifically included in proposals approved by HQ USAF will be funded by AMD according to paragraph 4f(1).

d. Medical facility commanders and investigators must not enter into contractual agreements that involve clinical investigation projects without the specific approval of the Surgeon General.

e. Unexpended funds from a terminated project and any equipment provided by AMD must be returned to AMD, Brooks AFB TX 78235.

6. Medical Investigation of Misadventures. The medical facility commander reports directly to HQ USAF SGPR, Wash DC 20314, any misadventure involving a clinical investigation study or any significant deviation from an approved clinical investigation protocol. An information copy of this report is sent to the appropriate command surgeon and area Forensic Medicine Consultant-Advisor. If the misadventure is life-threatening or otherwise serious, the medical facility commander:

a. Transmits initial reports as quickly as feasible by electrical means to the above addressees. If MINIMIZE is imposed, reports are made by the most expeditious alternate means available.

b. Submits a final complete narrative report to the above addressees within 15 days of the misadventure.

NOTE: If the reports referred to in a and b above are not classified, make them "FOR OFFICIAL USE ONLY" (AFR 11-30) and "SENSITIVE MEDICAL DATA."

7. Publishing Reports. Publication of papers resulting from clinical investigation projects is encouraged in military and civilian professional journals. NOTE: See AFR 190-17 for proper clearance procedures. All printed papers, articles, and reports that pertain to the use of volunteers within the provisions of this regulation must contain the following statement: "The voluntary fully informed consent of the subjects used in this research was obtained as required by AFR 169-6."

8. Clinical Investigation Studies Involving Gifts. The policies and procedures for receiving, accepting, and administering both conditional and unconditional gifts proffered to the Department of the Air Force (DAF) are in AFR 11-26 and AFM 67-1, volume V, chapter 12, paragraph 7. Clinical investigation studies that involve the acceptance of equipment, supplies, or drugs from other than the Department of Defense activities must comply with AFR 11-26. Commanders of US Air Force medical facilities can accept a gift of tangible or intangible personal property that is valued less than \$500, provided it does not require more than a negligible expenditure for acceptance or maintenance. Acceptance of personal property gifts of more than \$500 requires approval of the Secretary of the Air Force. Equipment that is on loan to a DAF activity for which no responsibility for loss, damage, or maintenance is assumed, is not considered a gift in the sense of AFR 11-26.

9. Maintenance of Records. All records documenting review, approval, conduct and results of clinical investigation involving human test subjects must be maintained permanently by the Institutional Review Committee since they represent an irreplaceable source of medical knowledge and are required for medico-legal deliberations. Each clinical investigation record must contain, as a minimum, a copy of the original protocol, any changes to the protocol, results of local and HQ USAF committee review, copies of informed consent forms signed by the participant, copies of any pertinent data entered into the patient's medical records, and progress and final reports. Clinical investigation records involving experimental animals must contain information on each animal's treatment and final disposition; these records will be maintained for 5 years following completion/termination of the project. Utilization of funds provided by the Surgeon General's Clinical Investigation Committee will be documented in the clinical investigation record.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

DAVID C. JONES, General, USAF
Chief of Staff

JAMES J. SHEPARD, Colonel, USAF
Director of Administration

SUMMARY OF REVISED, DELETED, OR ADDED MATERIAL

This revision expands on the responsibilities of Department Chairman and the Institutional Review Committee, and includes policy on maintenance of records (para 9).

Sample Format
PROPOSAL FOR CLINICAL INVESTIGATION
(Title of Investigation)

1. **Purpose of Investigation.** Give a brief summary.

2. **Bibliography.** After a careful search of the scientific literature for related studies, list the major publications in the field of the investigation.

3. **Technical Approach.** Summarize all information needed for an adequate evaluation: include details of the experimental design, a description of methods to be used, and number, age, sex, and so forth, of subjects and controls. For protocols involving human test subjects, describe hazards and safeguards.

4. **Equipment.** List items of required equipment and the estimated cost of each item.

5. **Investigation Schedule:**

- a. Date investigation will begin.
- b. Duration.
- c. Time phases.
- d. Date of completion. NOTE: List any factors which may adversely influence this schedule.

6. **Experimental Subjects.** If experimental subjects are involved, include a statement indicating compliance with the appropriate regulation:

- a. Human test subjects, AFR 169-6.
- b. Animals, AFR 169-2.
- c. If human subjects are involved, the age range of the participants must be specified in the protocol.

7. **Use of Investigational Drugs.** If the investigation concerns human studies, treatment or diagnostic procedures involving the use of medications not listed in the US Pharmacopoeia or the National Formulary, or not approved for general use by the FDA, include copies of the appropriate FDA form(s).

a. FD-1571, Notice of Claimed Investigational Exemption for a New Drug.

b. FD-1572, Statement of Investigator (Clinical Pharmacology).

c. FD-1573, Statement of Investigator.

These forms may be obtained from the Office of New Drugs, Food and Drug Administration, Wash DC 20204. Also include the drug manufacturer's name and FDA IND Number, and a copy of the clinical brochure usually supplied by the sponsoring pharmaceutical company.

8. **Personnel Data:**

a. Medical Facility Commander (name, grade and title).

b. Investigator and Associate Investigator(s) (name, grade and title).

Attach curricula vitae.

9. **Manpower.** Estimate number of manhours to be applied to the investigation, categorized by Air Force Specialty Code (AFSC): for example:

1 Captain, AFSC _____, Hours _____

1 SSGT, AFSC _____, Hours _____

1 GS-5 Secretary, AFSC _____, Hours _____

7 May 1982

Inspection
THE INSPECTOR SYSTEM

This regulation sets policies, procedures, and responsibilities for all Air Force functions and activities (including Air Reserve Forces (ARF)) that direct, conduct, or are subject to inspections by HQ USAF, major command (MAJCOM), numbered Air Force (NAF), or separate operating agency (SOA) inspectors general

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Supersedes AFR 123-1, 28 March 1980. (See signature page for summary of changes.)

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Chapter 1

THE INSPECTION PROGRAM

1-1. Purpose of Chapter 1. This chapter sets the US Air Force Inspection Program's basic policies, responsibilities, and reporting procedures.

1-2. Terms and Definitions. See attachment 1.

1-3. Who This Regulation Applies to:

★(a) Those basic policies and procedures for inspectors general inspections in chapters 1 through 8 apply Air Force-wide. Each MAJCOM and SOA, and the National Guard Bureau (NGB) must supplement this regulation, with policies and procedures for each type of inspection performed. These supplemental policies, procedures, and criteria are added as chapters 9 through 15. This regulation must be reviewed 1 July each year, and supplements must be reviewed 1 October each year. Chapters 9 through 15 are added by supplement, using these chapter numbers and titles:

(1) Chapter 9 (Added), MAJCOM or SOA Nuclear Surety Inspections.

NOTE: Use the guidance in chapters 1 and 2 to develop supplements.

(2) Chapter 10 (Added), MAJCOM or SOA Operational Readiness Inspections.

NOTE: Use the guidance in chapters 1 and 3 to develop supplements.

(3) Chapter 11 (Added), MAJCOM or SOA Mission Capability Inspections.

NOTE: Use the guidance in chapters 1 and 4 to develop supplements.

(4) Chapter 12 (Added), MAJCOM or SOA Management Effectiveness Inspections.

NOTE: Use the guidance in chapters 1 and 5 to develop supplements.

(5) Chapter 13 (Added), MAJCOM or SOA Chemical Capability Inspections.

NOTE: Use the guidance in chapters 1 and 6 to develop supplements.

(6) Chapter 14 (Added), Inspection of Air Reserve Forces. HQ USAF, NGB/CF, and the Air Force Reserve (AFRES) develop this chapter, using the guidance in chapters 1 through 7. It must be coordinated with applicable gaining commands and with HQ USAF/IG before publication. HQ USAF/IG and gaining commands must be provided current copies of AFRES supplements. AFRES MEI supplementary guidance is published in chapter 12.

(7) Chapter 15 (Added), Unique Inspections. This chapter, as supplemented, contains guidance for inspections that do not fit other categories (chapters 9 through 14).

NOTE: For policy on inspecting US Air Force Intelligence activities, see AFR 123-3.

b. The implementation and application of procedures outlined by this regulation are not a basis for a change in

number, type, and kind of manpower requirements or authorization.

c. The Inspector General, USAF, and those inspectors general appointed by MAJCOMs, SOAs, and NAFs (per AFR 20-68) conduct inspections of subordinate units. An inspection is an official examination of a unit's mission capability, programs, and functional area support. It may include the checking or testing of units and individuals against established standards. Personnel conducting the inspection measure a unit's management effectiveness and compliance with directives. Inspectors general conduct inspections that:

(1) Are formal, official, and determine mission performance.

(2) Are imposed by higher authority, and must report results to that authority by use of a rating system.

(3) Are recurring.

d. All inspections done by inspectors general are conducted and reported according to this regulation. All US Air Force oversight activities must report travel schedules according to AFR 11-13, to make sure that schedules do not conflict.

1-4. What This Regulation Provides:

a. Objective of the Air Force Inspection System. This system is designed to give the Secretary of the Air Force; the Chief of Staff, USAF; and MAJCOM, SOA, and NAF commanders:

(1) A way to measure the US Air Force readiness, as shown in units and systems performance.

(2) A way to measure the effectiveness of units, functions, programs, and guidance.

(3) A means to find and resolve important problems and to identify good management methods.

(4) A way to help units set priorities to perform their designated missions.

(5) A way to evaluate Air Force safety and occupational health programs, including those required by Air Force directives, such as 122-, 127-, and 161-series publications.

(6) A way to validate and compare information available through other channels.

(7) A feedback system on corrective actions taken on previously identified deficiencies.

b. Concept of the Inspection System:

(1) Inspection is a basic responsibility of command. Inspectors general are responsible to their respective commanders. The success of any inspection system depends on the commander's personal involvement and close staff interaction with the inspector general.

(a) Inspectors general must focus on mission performance. Academic testing should not be used as a primary measure of performance, unless hands-on performance cannot be observed or unless it serves a specific purpose, as validated with the applicable staff agency.

The testing of civilians must not result in disciplinary action.

(b) The use of inspection resources is costly; therefore, the need for any inspection must be clearly defined.

(c) All elements of the command must make sure that inspections are not redundant or excessive, so as not to overburden subordinate units or to overtax limited inspection resources. Inspectors general must make sure that the scheduling and designing of inspections are based on such factors as recent unit performance, mission priority, and leadership stability. The scheduling and designing of inspections must not be based solely on the calendar.

(d) A quality inspection requires the adequate preparing and careful tailoring of the inspection team composition to meet inspection objectives. Inspectors require at least 5 preinspection days to prepare and 3 post-inspection days (exclusive of any report writing) to coordinate findings with staff agencies. The number of days may vary, depending on the inspection size or complexity. A reduction in inspection quality may result when schedules and follow-up coordination require temporary duty in excess of 120 days per year or back-to-back efforts by individual inspectors.

(e) Proposals for higher headquarters inspection efforts should be in the format shown in attachment 2.

(2) Inspection observations and findings must be based on facts. Reports should be short and clear, and constructive recommendations should be included, when possible, to correct findings identified. Inspectors general should set up a method to clearly differentiate findings that limit mission performance from those that are primarily administrative.

(3) Findings should:

(a) Be validated at each level of command, up to the management level needed to begin corrective action on the deficiency. Inspectors receiving a nonconcurrency with inspection facts should attempt to resolve the conflict, through the chain of command, and note the nonconcurrency in the report.

(b) Identify problems needing command emphasis.

(c) Identify, to the extent possible, the basic cause of problems, and reference applicable directives when noncompliance is the basis for the finding.

(d) Identify an office of primary responsibility and an office of collateral responsibility, if applicable, to correct the problem at the lowest level of command or staff with resources to do so.

(e) Identify incorrect, inappropriate, or counterproductive guidance, at any level of responsibility.

(f) Identify outstanding personnel and management methods (commendable findings).

(4) Recommendations, when made, should:

(a) Be made to correct deficiencies.

(b) Consider the cost in resources and any impact on the unit's mission, if implemented.

(c) Give a lasting correction of the cause of the problem

(d) Be coordinated with the agency that is to implement the corrective action.

(e) Not be considered binding; however, unit commanders must correct the deficiency, problem, or finding identified. They should consider the offered recommendation, when deciding the proper course of action.

c. Scope of Inspection Functions. Inspection functions established at HQ USAF, MAJCOMs, SOAs, and NAFs make up the formal inspection system (AFR 20-68). Personnel performing these functions examine the ability of the Air Force and its units to carry out assigned roles. These personnel rate the effectiveness, efficiency, and economy of Air Force policies, plans, operations, procedures, and management. They investigate those areas directed by the Secretary of the Air Force; the Chief of Staff, HQ USAF; or the commander concerned.

(1) When units or agencies with an evaluation or quality control mission are inspected, the results of those evaluations must emphasize the unit's performance.

★(2) The inspection system extends into every field of Air Force affairs, including Air Force components in joint exercises, when approved by the applicable unified or specified commander. Inspection of the Air Force contract administration function is included (see i below).

NOTE: The Assistant Chief of Staff, Intelligence (HQ USAF/IN), is responsible for the security management of sensitive compartmented information (SCI) programs (that is, administration, personnel, physical, and communications security) within the Air Force, according to USAFINTELS 201-1 and 204-4. The Commander, Air Force Intelligence Service (AFIS) has been given the authority and responsibility to inspect US Air Force SCI programs. HQ USAF/IN and HQ AFIS/INSC must be notified before inspections that directly involve the security management of SCI programs. The Defense Intelligence Agency (DIA) must be notified before similar inspections of US Air Force elements under the SCI security control of DIA, according to USAFINTEL 201-1 and DOD Directive TS-5001.2(M-1).

d. Rating System. These levels of capability must be used in all inspection reports that require the use of a rating system. They are used to describe the overall rating of critical and noncritical areas, and other functional areas evaluated. Only those statements pertaining to a particular inspection need be considered.

NOTE: Team chiefs may assign ratings that accurately reflect observed performance, regardless of statistical outcomes. Specific criteria are designed as a guide and are not a substitute for the judgment of the inspector general; however, when ratings differ greatly from established criteria, the rationale should be explained.

(1) **OUTSTANDING.** Performance or operation far exceeds mission requirements. Procedures and activities are carried out in a far superior manner. Resources and programs are very efficiently managed and are of exceptional merit. Few, if any, deficiencies exist.

(2) **EXCELLENT.** Performance or operation exceeds mission requirements. Procedures and activities are car-

ried out in a superior manner. Resources and programs are very efficiently managed. Relatively free of deficiencies.

(3) **SATISFACTORY.** Performance or operation meets mission requirements. Procedures and activities are carried out in an effective and competent manner. Resources and programs are efficiently managed. Minor deficiencies may exist, but do not impede or limit mission accomplishment.

(4) **MARGINAL.** Performance or operation does not meet some mission requirements. Procedures and activities are not carried out in an efficient manner. Resources and programs are not efficiently managed. Deficiencies exist that impede or limit mission accomplishment.

(5) **UNSATISFACTORY.** Performance or operation does not meet mission requirements. Procedures and activities are not carried out in an adequate manner. Resources and programs are not adequately managed. Significant deficiencies exist that preclude or seriously limit mission accomplishment.

e. Inspector Requirements. AFR 20-68 authorizes the appointment of inspectors general. Inspectors should be fully qualified and experienced in their functional areas. They should complete the USAF Inspection School as follows:

(1) Team chiefs and inspectors should attend after taking part in one to three inspections and, unless unusual circumstances dictate otherwise, complete the course within 90 days of assignment or as noted in (2) below.

★(2) United States Air Force Europe, Pacific Air Forces, and Alaskan Air Command team chiefs and inspectors attend the first class given in their area, or if they are being reassigned from the continental United States (CONUS), they should attend while on temporary duty (TDY) status, enroute at Norton AFB CA when possible.

(3) When unusual circumstances dictate, a request for a waiver must be sent to the Air Force Inspection and Safety Center (HQ AFISC/IG, Norton AB CA 92409).

f. Tour of Duty. The normal inspection duty tour is 2 years (see AFRs 36-20 and 39-11). Personnel may move within the MAJCOM, SOA, NAF headquarters before or after an inspector tour, to meet time-on-station requirements. After they complete an inspection tour, inspectors are not usually assigned to inspection duties for at least 3 years. Personnel who are serving in an inspection organization, but are doing less than full-time inspection duties, come under those rules for a normal tour length.

g. Augmentation Personnel. HQ USAF staff offices, MAJCOMs, SOAs, NAFs, and direct reporting units (DRU) provide personnel with special skills to assist in inspections, when requested.

h. Inspection Notification. Inspections should be on a prior-notice basis, unless no-notice serves a specific purpose, such as simulation of wartime notification, fraud prevention, or for follow-up inspections.

★**i. Inspection of Air Force Contract Administration and Contracted Functions:**

(1) The inspection of a contractor's performance is limited to observing the contractor's performance, along with evaluating the adequacy of contract administration and surveillance, and the sufficiency of those performance requirements of the contract statement of work (SOW). Selected areas of a contractor's performance may be reviewed to determine how the Air Force manages the function that has been contracted. Inspection team members must not provide or discuss inspection observations and reports to contractor employees or the contractor. The contracting officer may tell the contractor the essence of report findings, by separate correspondence, if those findings relate to the contractor's compliance with contract terms and conditions.

(2) Inspection observations, findings, and ratings should include the adequacy of SOW requirements, and contract administration and surveillance. Contractors must not be given an inspection rating. When evaluating the management of a contracted function, inspection findings on the adequacy of SOW requirements and surveillance should be sent to the Air Force functional manager, except when surveillance is the responsibility of a contract administration activity. All other contract management and administration deficiencies should be directed to the contracting officer.

(3) When observing Air Force contract administration organizations or inspecting Air Force contract management activities, the guidance and procedures in AFR 11-12 and, when appropriate, Defense Acquisition Regulation 20-802 must be followed. Before observing a contractor's performance, the inspection team must be briefed by the contract administration office on:

(a) Contract terms and conditions.

(b) Delegations of authority to administrative contracting officers, and quality assurance and functional area evaluators.

(c) Procedures used in performing contract surveillance.

(d) Methods to be used to obtain records and data from the contractor.

(e) Unique performance or sensitive contract management issues.

j. Access to Information. Within those limits of an inspector's security clearance, access must be granted to information for which an inspector has a need to know to complete an inspection.

k. Personal Information. Usually, inspectors do not ask individuals for personal information; however, if such information is required, inspectors must furnish a Privacy Act advisement, according to AFR 12-35. The inspector, if necessary, consults with the office of primary responsibility (OPR) for the inspection (and with staff judge advocate, if necessary) for guidance.

l. Inspection Inbrief and Outbrief. The MAJCOM inspector general must present an inbrief and outbrief to the commander of the inspected unit or agency. The scope and content are at the discretion of the inspector general. Requirements and procedures for unit briefings to the inspection team are established by the MAJCOM.

m. Air Force Audit Agency (AFAA) and Air Force Office of Special Investigations (AFOSI) Coordination. Close working relationships are needed between inspectors general, Air Force auditors, and AFOSI special agents, to coordinate schedules, provide crosstell, and determine ways to detect, investigate, and help prevent instances of mismanagement, waste, and fraud.

(1) Inspectors general, at all levels, must set up procedures to make sure that inspection activities are coordinated with HQ AFAA and HQ AFOSI.

(2) Upon arrival at a unit for an inspection effort, the inspection team chief or representative must contact HQ AFAA and HQ AFOSI representatives, if available. Areas of mutual interest, including ongoing audits, investigations, potential problem areas, the purpose of the inspection, and the extent to which individual inspectors will coordinate with auditors and investigators, must be discussed.

★(3) During any inspection, inspection team chiefs must immediately inform the local AFOSI and unit commander whenever instances of actual or potential fraud are discovered. The unit commander must act on the information, request an AFOSI investigation, if applicable, and inform the applicable inspector general, through command channels, that an investigation has or has not been performed.

(4) Inspection team chiefs must inform applicable MAJCOM and Air Staff functional managers and AFOSI offices, when they discover examples of poor guidance, structure, or higher headquarters management or control procedures that provide an environment conducive to fraud.

(5) All inspection team chiefs must make sure that, whenever possible, HQ AFAA and HQ AFOSI are made aware of major inspection findings applicable to them before the team departs. They must also make sure that both agencies have access to written reports (except those done by Electronic Security Command (ESC), unless special authorization or clearance is obtained through proper channels).

n. Inspection Programs. Inspection programs must be developed and coordinated to control the number of inspections and to eliminate duplication. To do this:

(1) Each inspection agency must send a quarterly program to the next higher headquarters for coordination and consolidation. This consolidated program must reach HQ AFISC/EM, Norton AFB CA 92409, 60 days (1 February, 1 May, 1 August, or 1 November) before the program starts.

(2) HQ USAF inspection programs must be coordinated with HQ AFAA/XP so that inspections and audits performed in similar functional areas complement one another. MAJCOM inspection programs must be coordinated with their command AFAA representative.

(3) HQ USAF, MAJCOM, SOA, and NAF staff assistance teams must coordinate visits with their inspectors general, to make sure that the staff assistance program complements the inspection program. Inspectors general

must make sure that the staff is aware of this requirement.

(4) Inspectors general at each level must designate trusted agents to handle and safeguard programming and planning information for no-notice inspections. No-notice inspection schedules are handled through the trusted agent system and are marked "TRUSTED AGENT INFORMATION." MAJCOMs, SOAs, NAFs and Air Reserve Forces (ARF) must send the names and telephone numbers of their trusted agents to HQ AFISC/EM, Norton AFB CA 92409.

o. Inspection Program and Visit Report. Each MAJCOM and SOA must:

(1) Prepare its inspection program on AF Form 503, Inspection Program and Visit Report, per AFR 11-13. Self-inspections need not be included. The program must include:

(a) All safety efforts. If the safety function is not within the inspector's general function, the program must be coordinated with the Director of Safety (HQ AFISC/SE).

(b) The team composition and travel plans, with dates of visits at each site.

(c) Dates of each inspection phase, as required.

(2) Send one copy of AF Form 503 to HQ AFISC/EM. Enter prior-notice and no-notice inspections on the same form. When no-notice inspections are listed, mark the package "TRUSTED AGENT INFORMATION."

(3) If the MAJCOM has nuclear capable units, also send one copy of AF Form 503 to the Director of Nuclear Surety, Det 1 AFISC/SNW, Kirtland AFB NM 87117.

(4) Immediately report program changes that involve a unit, or type or date of inspection, by using a revised AF Form 503. For a notification that is less than 7 duty days, notify HQ AFISC/EM and the Director of Nuclear Surety, Det 1 AFISC/SNW, if necessary, by telephone and confirm it with an AF Form 503.

(5) Notify HQ AFISC/EM of all other visits (AFR 11-13). Report all changes at once.

★p. Self-inspection Program:

(1) Each SOA and DRU that does not have a formal inspection system authorized by AFR 20-68 must establish a program of self-inspection.

(2) All Air Force organizations or agencies, including commanders, chiefs of staff agencies, staff deputy directors, or comparable staff agencies, that are not subject to MEIs are encouraged to establish a self-inspection program.

(3) Self-inspection programs must:

(a) Be tailored to the organization's structure and mission.

(b) Contain oversight mechanisms, to provide adequate coverage of the organization's mission, resources, training, and people programs. These mechanisms may consist of periodically administered checklists, quality control or assurance reviews, internal audits, functional inspections, management information systems, numerical summaries, management objective reviews, analysis

programs (trend, management, or comparative), etc.

(c) Identify problems, without regard to the difficulty of resolution. Problems should be categorized by mission impact, compliance with policy, and the effort needed to fix problems.

(d) Contain a feedback mechanism so that identified problems can be tracked until resolved, waivers or outside assistance obtained, or limiting factors reported formally.

(e) Contain a mechanism that will, according to importance or severity, direct problems to the proper level for action or attention.

(4) Inspection teams may review self-inspection or internal review programs. Teams should place emphasis on the quality of internal reviews, if major management or compliance problems are found.

1-5. Responsibilities of The Inspector General, HQ USAF. The Inspector General may inspect any Air Force activity, to include Air National Guard (ANG) and US Air Force Reserve (USAFR) organizations and units. The Inspector General reports to the Secretary of the Air Force, as well as to the Chief of Staff, USAF (10 U.S.C. 8032), and is also a professional assistant to the Secretary.

a. The Inspector General conducts:

(1) Over-the-shoulder inspections (OTSI) and unit inspections, as appropriate, to evaluate the effectiveness of command inspection systems. HQ AFISC/IGQ and the Director of Nuclear Surety will coordinate the augmentation for OTSIs when nuclear surety inspections (NSI) and operational readiness inspections (ORI) are combined.

NOTE: AFISC field visits give HQ USAF/IG inspectors the opportunity for dialogue, crossfeed, and currency on command issues and policy, and to become acquainted with command inspectors and units. Formal reports are not written, and trip reports must not be released outside HQ USAF/IG channels without the approval of The Inspector General. Before ending their visit, HQ USAF inspectors usually provide feedback to the hosting MAJCOM or inspector general.

(2) Nuclear surety inspections (NSI), to determine that nuclear resources are efficiently managed and weapons are stored, maintained, and handled in a safe, secure, and reliable manner.

(3) Functional management inspections (FMI), to evaluate any program, function, or activity that may have a mission impact.

(4) Health services management inspections (HSMI), to evaluate the management of functional elements within active and ARF medical units.

(5) Chaplain service management inspections (CSMI), and other inspections as required, to evaluate the adequacy and effectiveness of the chaplain service.

(6) MEIs and MCIs of Air Force activities, as may be agreed upon by MAJCOM or SOA inspectors general and The Inspector General.

(7) System acquisition management inspections (SAMI), to evaluate those functional aspects of the

acquisition process across a broad range of individual systems. A SAMI may include OTSIs to broaden the SAMI data base, while evaluating the command's inspection system effectiveness as it relates to the acquisition process.

(8) Inspections of joint service activities, based on interservice agreements.

(9) Follow-up inspections, as necessary, to evaluate the effectiveness of the corrective action taken on previously identified deficiencies.

(10) Air Force intelligence oversight activities and inspections (AFR 123-3).

(11) Other inspections, evaluations, assessments, and studies, as needed.

b. The Inspector General also:

(1) Conducts investigations (AFR 120-3).

(2) Conducts the USAF Inspection School.

(3) Makes sure that summaries of findings, replies, and corrective actions to The Inspector's General inspection reports are prepared.

(4) Sets up an analysis system, to analyze inspection reports to determine trends, and distributes these analysis summaries to MAJCOM, SOAs, and appropriate HQ USAF offices.

(5) Briefs the Secretary of the Air Force; Chief of Staff, USAF; and HQ USAF; MAJCOM; and other officials on results of significant inspection developments, as required.

(6) Advises the Secretary of the Air Force, Chief of Staff, USAF; and HQ USAF officials of areas requiring further attention.

(7) Coordinates on applicable Air Force and ARF directives.

(8) Supervises the Air Force inspection system and assists command inspection organizations.

(9) Reviews MCI, MEI, ORI, NSI, and chemical capability inspection (CCI) criteria developed by MAJCOMs.

(10) Approves or disapproves requests for waivers to this regulation. Requests for waivers are addressed to HQ AFISC/IGQ, Norton AFB CA 92409, and the Director of Nuclear Safety, Det 1 AFISC/SNI, Kirtland AFB NM 87117 (if applicable), with an information copy to HQ USAF/IG, Wash DC 20330.

(11) Monitors MAJCOM, SOA, and NAF ORI, MCI, MEI, NSI, CCI, and staff assistance scheduling and reporting. Informs MAJCOM, SOA, and NAF of any inspection conflict. (AFR 11-13)

(12) Names trusted agents within HQ AFISC/EM and Det 1 AFISC/SNI to be custodians of MAJCOM "no-notice" inspection schedules.

(13) Operates the Special Interest Item (SII) Program, which focuses inspection efforts on specific Air Force management problems.

NOTE: SIIs may include instructions for ongoing data collection or a one-time survey or review. Inspectors general will place a priority on complying with instructions contained in each SII. (See attachment 3 for additional information on the SII Program.)

1-6. Responsibilities of Inspection Offices. All inspectors general must carry out those basic functions of the inspection system and other command responsibilities. These include:

a. Reviewing and analyzing command management information systems and HQ USAF, MAJCOM, and SOA plans, programs, statistics, and other material to identify areas for inspection.

b. Maintaining or having access to a current library with command data.

★c. Along with other staff agencies, developing and maintaining scenarios, guides, and criteria used for inspections of command activities and functions. As appropriate, coordinate with functional managers in the Air Staff, SOAs, and DRUs, such as Air Force Accounting and Finance Center (AFAFC), Air Force Commissary Service (AFCOMS), Air Force Engineering and Services Center (AFESC), Air Force Office of Security Police (AFOSP), etc.

d. Developing inspection programs, to make sure that essential functional areas are covered and to preclude duplication.

e. Preparing, processing, and maintaining inspection reports and related records.

f. Analyzing findings and identifying trends to determine areas requiring future inspections.

g. Developing and maintaining an inspection follow-up system, and reporting periodically to the commander those areas not receiving adequate attention.

1-7. Responsibilities of Major Command, Separate Operating Agency, Direct Reporting Unit, and Numbered Air Force Inspectors General. Each inspector general must schedule inspections of subordinate units. Units must be evaluated against current written criteria.

a. All units receive an MEI. Usually, C-rated units receive either an ORI or an MCI (see chapters 3 and 4 for exceptions). All chemical capable units receive a CCI. All nuclear weapon units receive an NSI. An NSI is usually done with an ORI; however, it may be done as a separate inspection.

b. The frequency of the inspection should be based on need. MAJCOM and SOA commanders determine inspection intervals and reinspection requirements, except for NSIs. Nuclear weapon units must receive an NSI at least every 18 months; reinspection requirements are in chapter 2. When an NSI is done with an ORI, NSI results are placed in the ORI message report, to give a more complete assessment of the mission performance.

c. Inspector general duties include conducting:

(1) MCIs that evaluate the ability of a support activity or unit to perform its mission.

(2) MEIs that evaluate the resource management function (except medical).

(3) ORIs that evaluate a unit's ability to perform its wartime mission.

(4) NSIs that evaluate a unit's ability to perform its nuclear mission.

(5) CCIs that evaluate a unit's capability to perform a chemical munition mission.

(6) FMIs that evaluate the command's programs, functions, and activities (except medical).

(7) OTSIs that evaluate the subordinate command's inspection systems.

(8) Inspections of units making intercommand transfers. Commands must agree on inspection requirements for the affected unit.

(9) Evaluations of a unit's ability to respond to natural disasters, major accidents, and attacks.

(10) Inspections of training programs in which personnel may be subject to undue physical or psychological stress.

(11) Joint inspections, when proper. The evaluation of functional areas of mutual interest must be documented in a report addressed to concerned commands and signed jointly by team chiefs from the respective commands.

(12) Personal conference periods (AFR 123-11).

(13) Investigations (AFR 120-3).

(14) Intelligence oversight inspections, as proper.

★(15) Other inspections, to include:

(a) Army and Air Force Exchange Service (AAFES) exchange and motion picture operation (AFR 147-7).

(b) Code of Conduct Training programs (AFR 50-16).

(c) ANG and USAFR units and base support activities (except medical) for which they are the gaining command. These inspections should include the ANG United States Property and Fiscal Officer (USP&FO), as described in d(13) below, and should be coordinated with the ANG and AFRES.

(d) Civil Air Patrol (CAP), USAF Auxilliary, and supporting Air Force liaison units, as applicable.

d. Inspectors general must also:

(1) Analyze inspection findings, and review and evaluate replies to command inspections.

NOTE: MAJCOMs designate the OPR for this responsibility.

(a) Recommend staff assistance visits, as coordinated with affected commanders, to correct major deficiencies identified during inspection.

(b) Provide crosstell information, for the unit's use, that summarize recurring problems identified during inspections and that highlight commendable programs.

(c) Establish or recommend a command or an Air Force SII, and conduct or recommend an FMI when similar significant problems are seen in several units.

(d) Provide feedback to staff agencies at all levels.

(2) Advise commanders or staff officers, including ANG (NGB/CF and SE) and USAFR (HQ USAF/RE and AFRES/CV), of major problems requiring command attention and staff action. Send analyzed data on problem areas to HQ AFISC/IGX (HQ AFISC/SG for medical), Norton AFB CA 92409.

(3) Validate the accuracy of the unit's inputs to es-

established MAJCOM level management information systems (MIS). Specifically, relate ratings and comments to specific MIS data and the overall picture of the unit's performance, available to MAJCOM staff levels. Determine why significant differences occur, and inform the applicable deputy chief of staff (DCS) and the commander.

(4) Send inspection support requirements to each activity that may be inspected, and make sure that each activity develops an inspection reception plan. The plan should include billeting, transportation, and work area information. The MAJCOM, SOA, and NAF level audit office and AFOSI representatives should be informed of the inspection visit. A project officer should be selected to work out specific team requirements.

(5) Schedule new inspectors to attend the USAF Inspection School.

NOTE: For those nonmedical inspectors tasked to inspect medical records of people under the Personnel Reliability Program, coordinate with the Directorate of Nuclear Surety, Det 1 AFISC/SNW, Kirtland AFB NM 87117, to schedule training in this area.

(6) Coordinate the inspection element, programs, and schedules with HQ AFAA and HQ AFOSI.

(7) Send requests for waivers to this regulation to HQ AFISC/IGQ, Norton AFB CA 92409, or the Director of Nuclear Surety, Det 1 AFISC/SNW, Kirtland NM 87117, when applicable, with an information copy to HQ USAF/IG, Wash DC 20330.

(8) Send one copy of each MAJCOM medical staff assistance visit and report performed to HQ AFRES or its numbered air forces (Reserve) (NAF(R)) to HQ AFISC/SGEP, Norton AFB CA 92409.

(9) Report to the accounting and finance office supporting the MAJCOM, SOA, or NAF those inspection resources used to inspect morale, welfare, and recreation activities (AFR 177-101, part IV, chapter 12).

★(10) Maintain a system to give inspection coverage of MAJCOM and US Air Force SIs. A current list of MAJCOM SIs and special emphasis topics should be sent to HQ AFISC/IGX, Norton AFB CA 92409, at the beginning of each new quarter of the fiscal year.

(11) When required, request augmentation from MAJCOM or SOA staff, subordinate agency inspectors general, or other inspectors general:

- (a) From host or tenant MAJCOMs for MEIs.
- (b) From using commands for MCIs.
- (c) From supporting commands for ORIs.

NOTE: Inspectors general must make sure that all augmentors are qualified, trained, and informed of inspection duties and responsibilities. Frequently used augmentors should attend the USAF Inspection School.

(12) Provide augmentation support, when possible.

(13) Inspect ANG units (except medical), state headquarters, and air technicians who give base support according to this and other directives (see chapter 14, (added) for further guidance).

(a) A USP&FO inspection must be conducted (32 U.S.C. 708). This report must state whether this inspection is part of an MEI or ORI. In many cases, it is neces-

sary to inspect those assistant USP&FO functions at the ANG unit level. If the contracting officer authority is at the state USP&FO, the ANG acquisition function within the state USP&FO must be inspected.

(b) Inspections of ANG state headquarters, the state USP&FO, and permanent field sites must take place as agreed upon by gaining commands and the NGB.

(c) The gaining command must make a federal recognition inspection (FRI) of a state unit, when the unit is being considered for federal recognition and for war-time tasking, or when asked to do so by the NGB.

1. The FRI must be conducted according to ANGR 26-2.

2. An FRI of a detachment is not needed if the parent unit is federally recognized. If a detachment is being made a part of a state unit to be federally recognized, the FRI should include the unit and the detachment.

3. As soon as a satisfactory FRI is completed on the unit, the gaining command assumes the responsibility assigned in AFR 45-1.

(d) If an ANG unit is rated less than satisfactory, the inspection team chief may recommend probation for the unit or the withdrawal of federal recognition. This recommendation must be in writing to the gaining MAJCOM commander, and explain why the recommendation is being made. The letter is processed according to ANGR 26-2. The gaining major command sends a letter to the Chief, NGB, with recommendations. Information copies of this letter must be sent to those state adjutants general concerned; ANG units concerned; The Inspector General, USAF; the Director of Operations, HQ USAF; and the Deputy Inspector General for Inspection and Safety, HQ AFISC.

(e) ANG units rated less than satisfactory are reinspected at the discretion of the gaining command. Reinspection must be coordinated with the NGB.

1-8. Responsibilities of Units:

a. Evaluate the relevance of established criteria to the stated, tasked, and implied mission of their unit and function.

b. Critically examine the cost and benefit of implementing the inspector general's recommendations. Unit commanders must correct validated deficiencies, as specified in the inspection findings, in a way and in the priority that meet mission objectives.

c. Examine all aspects of mission tasking and elements required and available to execute this tasking. Identify factors that limit mission capability and make sure that these limiting factors (LIMFAC) are identified in the reporting or information systems. Place a priority on correcting and reducing the mission impact of these LIMFACs.

1-9. Responsibilities of the Major Command Surgeon. Each MAJCOM surgeon must send one copy of each medical staff assistance visit of subordinate active duty and Air Reserve Forces units to HQ AFISC/SGEP, Norton AFB CA 92409.

1-10. Inspection Reports. Before preparing an inspection report, see DOD Regulation 5200.1-R/AFR 205-1.

a. Types of Reports To Be Written. Inspectors general use these types of reports:

(1) **Basic Report.** This report is usually in pamphlet or booklet form. It may be sent with a cover letter. It is a three-part report.

(a) Part I covers:

1. The inspection purpose, coverage, and overall rating.

2. LIMFACs observed during the inspection.

3. Commendable observations, if applicable.

4. A summary of major problem areas, and basic causes.

5. Actions underway to correct problem areas, if applicable.

6. Recommended corrective actions, if proper.

(b) Part II covers details of inspection findings. These may require Air Staff, MAJCOM, SOA, and NAF actions. They describe the symptom, impact, cause, and recommended corrective actions.

(c) Part III covers administrative details, such as the report distribution and reply instructions.

NOTE: Unit specific symptoms of major problems and all minor problems should be left with the unit.

(2) **Letter Report.** An informal report describing a problem that needs action.

(3) **Electrical Message Report.** A report prepared in the field covering a specific inspection. A mission capability inspection (MCI) message report may be sent from the MAJCOM headquarters. Message formats are shown in attachments 4, 5, 6, and 7.

NOTE: Inspection results pertaining to Broken Arrow response evaluations must be sent by electrical message, using formats in attachments 4, 6, or 7 when appropriate. If the Broken Arrow was not conducted during an NSI, ORI, or MCI, report by a separate condensed message, providing, as a minimum, the inspected unit location, date, Broken Arrow rating, and any problems encountered. The Directorate of Nuclear Safety, Kirtland AFB/SNI must be included as an addressee.

(4) **Field Memorandum Report.** This report may be used as an interim report, pending a final report. It may also be used when a basic report is not needed. This is also a report that the inspector leaves with the commander after an inspection. The intent is to leave a record of findings and recommendations with the commander, to start action on problem areas before the final report is published.

(5) **Extract Report.** A written extract from an inspection report that has information of interest to, or needing action by, an activity not inspected. It is sent with a cover letter that gives instructions for replies or other actions.

(6) **OTSI Report.** An OTSI team's written report of the command inspection system, containing comments, when applicable, on team qualification, organization, management, scenario, criteria, and other significant areas.

★(7) **Problem Summary Report.** A report used when the function inspected and deficiencies identified involve only one Air Staff agency for corrective action. (Used primarily by medical inspectors.)

★**b. Processing Electrical Message Reports:**

(1) Commanders of inspected units must send an electrical message to higher headquarters after receiving an electrical ORI, MCI, NSI, or CCI inspection report that requires a reply. When directed to reply to significant findings, replies must be sent within 5 workdays. Each response must cite the specific paragraph in the original report to which it refers and the action taken or planned to correct deficiencies. For NSIs conducted separately, see paragraph 2-6 and attachment 4.

(2) Each intermediate command headquarters that is an action addressee for significant findings must send an electrical message within 5 workdays to the next higher headquarters, after receiving the report from a subordinate.

(3) If the inspection report calls for corrective action by an activity outside the MAJCOM of the inspected unit, the action activity must include all original message action addressees as information addressees in its response. The Director of Nuclear Surety acts as the liaison on extract reports that deal with other services or government agencies involving nuclear weapons operations. Send electrical or written extract reports to Directorate of Nuclear Surety, Det 1 AFISC/SNI, Kirtland AFB NM 87117. The status of corrective action must be sent to the MAJCOM.

(4) If the report on units with nuclear weapons tasking includes the surety inspection as part of the overall report, a copy must be sent to the Directorate of Nuclear Surety, Det 1 AFISC/SN, Kirtland AFB NM 87117.

(5) If the inspected unit is an ANG unit, the commander sends an information copy to NGB/CF/SE/XO, Wash DC 20330 and, if applicable, to any command echelon located in another state.

c. OTSI Electrical Message Reporting Procedures. The OTSI team chief must submit a concurrence or non-concurrence in section A, paragraph 6, of the command electrical message. A concurrence requires no reply to the OTSI agency. If proper, a separate message may be sent. Nonconcurrence requires that corrective actions proposed or taken for those deficiencies cited in the OTSI message be included in unit and intermediate command replies.

★**d. Report Distribution.** Reports, other than those sent electrically, should be sent to proper levels of command, to include information copies to NGB/SE (and the state chain of command) or AFRES, as applicable; any applicable Air Staff agencies; and as appropriate, to functional SOAs and DRUs, such as AFAFC, AFCOMs, AFESC, AFLSC, AFMPC, AFOSP, etc.

(1) If the report is made by a MAJCOM, SOA, DRU, or NAF inspector general, one copy must be sent to HQ AFISC/DAP, Norton AFB CA 92409 within 5 days after publication. EXCEPTIONS: If the report is made by HQ AFOSI, HQ ESC, or HQ AFIS, one copy must be sent to HQ USAF/IGI, Wash DC 20330, and HQ AFISC/IGAI,

Norton AFB CA 92409. Field memoranda do not need a reply.

(2) If the report covers nuclear surety, a copy must be sent to HQ USAF/IGF, Wash DC 20330, and the Directorate of Nuclear Surety, Det 1 AFISC/SNI, Kirtland AFB NM 87117.

(3) For reports covering ANG units, one copy must be sent to HQ USAF/IGR, Wash DC 20330, and HQ AFISC/CCG, Norton AFB CA 92409. Ten copies must be sent to NGB/SE.

(4) If a joint service inspection is ordered by the Secretary of Defense or by the Joint Chiefs of Staff, the report must be handled as directed at the time the inspection is ordered.

(5) If the report covers an inspection, survey, or investigation of an Air Force component command conducted by The Inspection General, HQ USAF, it must be sent to the Chief of Staff, USAF, or to other high-ranking officials determined by The Inspector General.

(6) Each inspector general must make sure that the command AFAA representative gets one copy of each command inspection report.

(7) If the report covers an AFRES unit, one copy must be sent to HQ USAF/IGR, Wash DC 20330, and to HQ AFISC/CCR, Norton AFB CA 92409. Three copies each must be sent to HQ USAF/RE and AFRES/IG.

e. Electrical Message Report Distribution. On completing any type of ORI, MCI, NSI, or CCI inspection, the team chief must immediately report results by electrical message (for NSIs conducted separately, see attachment 4).

(1) Electrical message reports usually require a security classification. Before sending an unclassified report that identifies LIMFACs or major deficiencies, inspectors general should consider the degree in which the combat capability (individual and cumulative) is divulged. For nuclear weapons units, see the Air Force Security Classification Guide for Nuclear Weapons.

(2) A Priority precedence must be used, even during MINIMIZE, when reporting a less than satisfactory rating or when LIMFACs or major deficiencies are included (see AFR 100-20).

(3) Action addressees are determined by the MAJCOM or SOA. As a minimum, they should include all levels of command, from the inspected unit to the MAJCOM or SOA headquarters. If corrective action is required by an activity outside the MAJCOM or SOA of the inspected unit, include that activity as an action addressee. (For NSIs, see attachments 4 and 5).

(4) Information addressees, as a minimum, are:

(a) For all inspections:

1. HQ USAF WASH DC/ XO/LE/IG/PA/AC/ IN/MPXJ/ /.

2. HQ AFISC NORTON AFB CA/ IG/ /.

3. DIRECTOR OF NUCLEAR SURETY KIRTLAND AFB NM/ /SNI/ / (when applicable).

4. AFOSP KIRTLAND AFB NM/ /SPO/ / (when applicable).

5. Appropriate MAJCOM, NAF, or SOA inspectors general.

6. HQ AFESC TYNDALL AFB FL/ /DEO/ / (when applicable).

(b) If the inspected unit is a USAFR unit, add:

1. HQ USAF WASH DC/ /RE/ /.

2. AFRES ROBINS AFB GA/ /CV/IG/DO/LG/ /.

3. Appropriate NAF/CC.

4. Parent Reserve Wing/ /CV/ / (if separate from inspected unit).

(c) If the inspected unit is an ANG unit, add:

1. NGB WASH DC/ /CF/XO/SF/ /

2. State adjutant general and state ANG headquarters of the unit.

f. Replies to Inspection Reports. Replies are required for all findings identified as requiring a response. Replies are processed through command channels. Each interested headquarters staff agency reviews all replies within its area of responsibility. Comments are needed if the staff agency does not agree with the response or corrective actions.

(1) Air Staff, MAJCOM, SOA, and NAF replies to The Inspector General, HQ USAF inspection reports are sent according to instructions in part III of the report.

(2) The responsible command replies to extract reports and includes any corrective actions. The reply is sent through command channels to the inspecting headquarters (see b(3) above for processing extract reports for other services or government agencies for nuclear matters).

(3) The ANG unit commander replies through ANG command channels to the state adjutant general, then to the US Air Force commander who authorized the inspection. An information copy must be sent to NGB/SE.

(4) USAFR unit commanders reply through USAFR command channels to HQ AFRES.

(5) NGB and AFRES replies to inspection reports on matters within their area of responsibility and not correctable at unit level or another level of Air Reserve Forces command, are sent to the gaining command.

(6) If the report covers an Army and Air Force exchange or motion picture service activity, or an Air Force commissary service activity, one copy of the report or the applicable portion of the report must be sent to the commander of the service activity (see g below).

g. Privileged Nature of Reports. Inspectors general and inspectors are confidential agents of their commander. Reports of inspections are "privileged" documents, and distribution is controlled. Certain correspondence related to inspection reports may also be privileged (see attachment 8 for further guidance). Commanders must make sure that personnel under their command are aware of the privileged nature of inspection reports and protect these reports accordingly. For example, neither ratings nor findings may be repeated verbatim in base newspapers, etc.

(1) The following statement must appear on the cover of, or in the body of, each report:

This is a privileged document, not releasable in whole or in part to persons or agencies outside the Air Force without the express approval of The Secretary of the Air Force.

NOTE: This restriction does not apply to inspections conducted jointly by evaluation teams from United States or Allied services and Department of Defense (DOD) agencies, if they agree to identify subject information with a statement such as: "This is a privileged document, not releasable in whole or part to persons outside the (applicable agency) or the Air Force (Authority: (applicable agency regulation) and AFR 123-1)." When the Defense Nuclear Agency (DNA) does a surveillance inspection of an NSI team, DNA personnel may see all NSI inspection reports of that unit being inspected by the NSI team.

(2) If brevity is needed, such as in messages, use "Privileged document—Ref AFR 123-1," instead of the above statement.

(3) A report control symbol (AFR 178-7) is not required on inspection reports or related correspondence.

(4) All state adjutants general, regardless of the service, are authorized to receive privileged information that contains comments on units under their control.

★(5) The US Commander-in-Chief, Europe, and the US Commander-in-Chief, Pacific, are authorized to receive NSI reports of US Air Force units in their respective areas, with the concurrence of the respective US Air Force component commander.

(6) North American Air Defense Command (NORAD) Region and Air Division commanders may release Tactical Air Command (TAC) and Air Defense Tactical Air Command (ADTAC) inspection reports pertaining to ADTAC units to NORAD personnel who have a valid need-to-know.

(7) Requests from the Congress (in conducting official business; that is, requested by a committee, not to respond to constituent query) and the General Accounting Office (GAO) for information about inspections and inspection reports are processed according to AFRs 11-7 and 11-8, respectively.

(a) Every effort should be made to meet those needs of the Congress, GAO, and DOD agencies on a case-by-case basis.

(b) Visual access, without physical release, must be the primary method of releasing information in inspectors' general reports to the Congress, GAO, and DOD agencies. Authority for granting visual access is delegated to the Deputy Inspector General for Inspection and Safety, and MAJCOMs and SOAs inspectors general.

(c) If the physical release of information in an inspector's general report or a complete report is requested, the requester must send the request to The Inspector General of the Air Force (HQ USAF/IG, Wash DC 20330), with full justification. In the case of the GAO, the request must be signed by an associate director or higher GAO authority.

(d) When visual access is granted or a complete report is released, it should be emphasized that those opinions and conclusions of the inspector do not represent an approved Air Force position. Also, recommendations contained in an inspector's general report do not represent an approved Air Force position until final action is taken by the responsible Air Force agency.

(e) When visual access or full release of inspectors' general reports is considered harmful to the mission of The Inspector General and the Air Force, a full and complete statement of fact, as described in (f) below, must be provided. Requests for statements of fact must include the proposed statement of fact, a copy of the corresponding inspection report, and a full explanation of those reasons for selecting this course of action. Send the complete package to HQ USAF/IGI, Wash DC 20330, for review and processing.

(f) A statement of fact is the complete inspection report, with only the following deleted:

1. Opinions, conclusions, and recommendations of the inspector.

2. Personal information that would constitute an invasion of privacy if released; that is, the social security number (SSN), medical or personal records, etc.

3. Information given on an express promise of confidentiality.

(8) The release of information in inspectors' general reports to persons or agencies other than those discussed above (Congress, GAO, and DOD) is governed by the Freedom of Information Act (5 U.S.C., Section 552(b) and AFR 12-30). These directives also apply when releasing information to Congress in responding to a constituent query.

(a) Inspection reports and related documents are internal communications of the Air Force and are excluded from release to the public under the Freedom of Information Act.

★(b) Requests from agencies or individuals other than Congress (official business), GAO, or DOD should be sent to HQ USAF/IGI, Wash DC 20330, for review and processing. Requests received under the Freedom of Information Act should be sent through HQ USAF/DADF, according to AFR 12-30.

(c) Statements of fact may be provided, if warranted.

★h. Maintaining and Disposing of Inspection Reports. Inspection reports are maintained according to AFM 12-20 and disposed of according to AFM 12-50. Unclassified inspection reports and related documents should be safeguarded in the same manner as For Official Use Only (FOUO) material, according to AFR 12-31. Classified reports and related documents should be safeguarded according to DOD Regulation 5200.1-R/AFR 205-1.

Chapter 2

NUCLEAR SURETY INSPECTIONS (NSI)

2-1. Purpose of Chapter 2. This chapter sets the policy for the Air Force Nuclear Surety Inspection Program and implements Air Force Technical Order (AFTO) 11N-25-1, DOD Nuclear Weapons Technical Inspection System. It also states Air Force policy for inspections conducted by the Defense Nuclear Agency (DNA).

NOTE: The Directorate of Nuclear Surety, Det 1 AFISC/SN, Kirtland AFB NM is the OPR for this chapter.

2-2. Policies for Conducting an NSI:

a. A unit's combat readiness and the management of nuclear resources are evaluated by comparing the unit's performance against approved safety, security, and reliability standards. To support this policy, nuclear weapon units receive these inspections.

★(1) Initial Nuclear Surety Inspection (INSI). An INSI, using training weapons, must be done before a unit takes on a nuclear mission for the first time and before war reserve (WR) nuclear weapons are placed at a unit or transported by an airlift unit. Explosives ordnance disposal (EOD) teams, nuclear logistics airlift units, and units with a nuclear contingency support mission that have certified personnel (Air Force specialty codes 462X0, 463X0, 464X0, etc.) also must receive this inspection before they are considered capable of supporting a nuclear mission. The only ratings given after this inspection are "ready" or "not ready" to support a nuclear mission. Prior notice by the inspection team is given for this type of inspection.

★(2) Nuclear Surety Inspection (NSI). Each nuclear capable unit must receive an NSI at least every 18 months. This inspection may be combined with an ORI or MEI and a tactical evaluation (TAC EVAL); however, it may also be conducted as a separate inspection. (NOTE: Whenever a nuclear capable unit receives an ORI and/or a TAC EVAL where nuclear operations are conducted (that is, loading, convoy, etc.), and an NSI is not scheduled, a limited NSI (LNSI) must be conducted to make sure that all nuclear related areas are critically evaluated and reported according to this regulation. This LNSI must not affect either the timing or the scope of the scheduled NSI (see paragraph 3-3e(2))). The NSI is also done:

(a) Within 90 days after a newly formed unit successfully completes an INSI and receives WR nuclear weapons.

★NOTE: EOD teams, units with a nuclear contingency support mission, and nuclear logistics airlift units are not required to receive this 90-day follow-up inspection.

(b) Before a unit becomes operational with a new nuclear weapon system (see attachment 9).

★(c) Within 90 days after an inspection rating of unsatisfactory. If a unit is rated unsatisfactory and not immediately reinspected and found satisfactory, the unit may not perform peacetime functions with WR weapons

in those areas rated unsatisfactory. MAJCOMs must make sure that WR weapons are reliably maintained and are afforded a safe and secure environment. The reinspection may be an LNSI.

(3) Limited Nuclear Surety Inspection. An LNSI of nuclear weapons units may be done at any time and is in addition to an NSI. It does not alter the 18-month NSI requirement. It is done:

(a) In place of an NSI for a major change that involves one type of weapon or aircraft (see attachment 9).

(b) To reinspect a unit in those areas that caused an unsatisfactory rating during an NSI.

★(c) By the Directorate of Nuclear Surety, to inspect any areas designated by the Inspector General. Examples: Prime Nuclear Airlift Force (PNAF) missions, weapons maintenance facilities, personnel reliability programs (PRPs), security upgrade programs, etc.

b. Other policies that apply during the conduct of nuclear surety inspections are:

(1) Joint MAJCOM nuclear surety inspections should be conducted to make sure that the host-tenant support capability is fully assessed. This inspection may be done by the host MAJCOM, if the tenant MAJCOM concurs. When joint inspections are conducted, a member of the tenant MAJCOM inspector's general staff who is familiar with inspection requirements must augment the host MAJCOM team, to make sure that these inspections are completely conducted.

(2) For a logistics airlift unit that has nuclear weapon transport mission, aircraft loadings and unloadings of representative types of nuclear weapons must be evaluated. Inspections should be conducted during actual WR missions, except for highly unusual cases. If the inspection is done during a mission involving WR weapons, the inspection team must not require additional weapon handling or loading.

(3) An inspector may not be considered a part of a unit's two-member team at any time during an inspection, except during an actual emergency. During airlift missions and when unescorted access to restricted areas is authorized, two cleared and Personnel Reliability Program certified inspectors may form their own two-member team.

★(4) WR weapons scheduled for the normal maintenance, loading, or movement should be used to determine a unit's technical proficiency. WR weapons are considered "not available" if they are not due for the normal maintenance, loading or unloading, or movement, or if they are prohibited from use by higher authorities. WR weapons may be used during loading or reentry vehicle (RV) mating when such operations are according to MAJCOM operations plans or operations orders. WR weapons must not be used for exercises or inspections conducted while persons are wearing complete chemical ensembles. Removal of the gas mask, to aid identification, and cumbersome gloves, to make sure that weapons

are not inadvertently damaged, is mandatory.

(5) Training weapons must be used for all INSIs. Training weapons may be used for other inspections when WR weapons are "not available." Assigned EOD trainers or other proper trainers must be used for evaluating EOD render safe and disposal procedures. If training weapons are used, those security, maintenance, and safety directives that apply to WR weapons are applicable, unless waived by the inspecting team. If the trainer does not meet WR standards and, if in fact the trainer is in a reject condition, the inspected maintenance team must so identify it. The inspector may then simulate that the deficiency has been corrected, and the inspection continues. Failure to reject a major component of a training weapon when it meets rejection criteria must, as a minimum, result in an unsatisfactory technical operation.

(6) Scenarios that are developed for NSI events and that are done as part of the ORI and/or TAC EVAL should be war plan oriented and should be judged against the wartime mission.

(7) Support given to tenant units by host bases must also be evaluated. Ratings and reportable items are sent to the command or organization responsible for the corrective action.

(8) All deficiencies must be analyzed, to determine root causes, and identified to the proper office of primary responsibility (OPR) for corrective action. At the end of an inspection, any deficiency that seriously impacts a unit's capability must be reported as a limiting factor or major deficiency and put in the NSI report.

c. Broken Arrow response evaluations are conducted using criteria in MAJCOM ORI, MCI, or MEI supplements and reported according to paragraph 1-10a(3) NOTE.

2-3. HQ USAF/XOO, Det 1 AFISC, and MAJCOM Responsibilities:

a. HQ USAF/XOO:

(1) Along with the Det 1 AFISC evaluates proposed NSI criteria, changes to NSI criteria, and requests for waiver of approved NSI criteria. HQ USAF/XOO notifies the requesting command of approval or disapproval within 30 days after the receipt of Det 1 AFISC comments, with information copies to HQ USAF/IGF, Wash DC 20330; HQ AFISC/IGQ, Norton AFB CA 92409; and Det 1 AFISC/SNI, Kirtland AFB NM 87117.

(2) Coordinates proposed munitions-related NSI criteria with HQ USAF/LEYW.

(3) Coordinates proposed security-related NSI criteria with HQ AFOSP/SPO, Kirtland AFB NM 87117.

b. Det 1 AFISC:

(1) Develops Air Force plans, policies, and procedures for conducting surety inspections.

(2) Performs inspections according to paragraph 2-7.

(3) Conducts field reviews, if proper, and sends comments on NSI criteria to HQ USAF/XOO within 30 days.

(4) Reviews corrective actions to NSI limiting factors

and major deficiencies identified in electrical message reports.

(5) Evaluates requests for a waiver or deferment of inspections required by this chapter. Sends a copy of the approval to HQ USAF/IGF and HQ AFISC/EM and IGQ.

(6) Acts as an observer for all DNA inspections of Air Force units, according to The Inspector General, USAF, and Director, DNA, Memorandum of Understanding.

(7) Reviews and indorses defense nuclear surety inspection (DNSI) corrective actions to the Director, DNA. If corrective actions are inadequate, they must be returned to the MAJCOM for rework before sending to the Director, DNA.

(8) Evaluates over-the-shoulder inspections (OTSI) reports, follows up on indorsements, and closes out these reports.

c. MAJCOMs With Nuclear Weapon Units:

(1) Conduct inspections required by this chapter. Inspectors may give written tests as part of the inspection. If tests are given, follow the guidance in paragraph 1-4b(1)(a).

(2) Send an electrical message report on all surety inspections (see attachments 4 and 5). Reports should be brief, clear, and concise. However, significant details should be included on those areas that impact the mission or that indicate an unusual situation.

(3) Prepare criteria for surety inspections. Criteria must cover all applicable functions (as listed in the US Air Force Program, Nuclear weapons Capabilities and Equipage (PS) Document; and paragraphs 2-5a, b, c, and d of this regulation).

(a) Send five copies of proposed criteria or changes to HQ USAF/XOO, Wash DC 20330; Directorate of Nuclear Surety, Det 1 AFISC/SNI, Kirtland AFB NM 87117; and HQ USAF/IGF, Wash DC 20330. Send one copy to HQ AFISC/IGQ, Norton AFB CA 92409.

(b) Publish approved criteria as a supplement to this regulation (chapter 9).

(4) Develop checklists for surety inspections. Send one copy of checklists and changes to Det 1 AFISC/SNI, Kirtland AFB NM 87117. Annually verify the currency of these checklists to Det 1 AFISC by 31 December.

2-4. MAJCOM Actions To Be Taken on Defense Nuclear Surety Inspection (DNSI) Reports:

a. Indorsed replies should arrive at Det 1 AFISC/SNI, at least 30 days before the due date to DNA, as shown on the formal report. Units must take corrective action based on the field report left by the DNA team. A cross-check should be made against the formal report when it is received. However, action to correct deficiencies should not be delayed until the formal report is received.

b. In the event of an overall unsatisfactory rating, DNSI results and the unit's status must be checked to see if those procedures of paragraph 2-2a(2)(c) should be put in effect. Det 1 AFISC/SNI, Kirtland AFB NM 87117, must be told of the results of the evaluation within 72

hours after the DNA inspection. (An overall unsatisfactory DNSI rating does not automatically invoke those provisions of paragraph 2-2a(2)(c).)

c. A reply to DNA surveillance inspection reports is made only if the DNA team does not agree with those findings of the NSI team. MAJCOMs must make sure that units take corrective action and prepare their indorsement to the report, based on the field report left by the DNA team.

2-5. Procedures for Conducting an NSI:

a. **Nuclear Surety Inspections.** The inspection team must evaluate, in detail, each applicable area outlined in (1) and (2) below. Subparagraph (1) outlines areas that impact directly on a unit's readiness or mission capability, or on the security, safety, or reliability of nuclear weapons or nuclear weapon systems. Therefore, these areas are critical "pass or fail" items for the NSI. Subparagraph (2) outlines other areas that must be inspected as part of the NSI. However, because these areas do not directly impact on a unit's readiness or mission capability, or on the security, safety, or reliability of nuclear weapons or nuclear weapons systems, they are not critical "pass or fail" items.

(1) Critical "Pass or Fail" Items for the NSI. Where feasible, objective measurements, such as percentages, numbers, etc., should be used to determine "pass or fail" ratings. If any of these areas are rated unsatisfactory, the overall NSI rating must be unsatisfactory. If any of these areas are rated marginal, these results must be considered when assigning an overall NSI rating. For areas rated marginal, a statement of the impact or the lack of an impact on the overall NSI rating must be included in the report. If the NSI is performed with an ORI and/or TAC EVAL, those inspection results from these critical areas must be considered when assigning an overall ORI and/or TAC EVAL rating. If any of these areas are rated marginal or unsatisfactory, a statement of the impact or the lack of an impact on the ORI and/or TAC EVAL rating must be included in the ORI and/or TAC EVAL report.

★(a) Nuclear Weapon Loading and Services. These areas must be observed for a safe and reliable performance. These areas are evaluated for the effect on force generation, launch, and delivery to the target. Included is an evaluation of the delivery system control and release function, as it affects weapon system reliability. Weapon breakout and convoy operations also are included as a part of this functional area. For United States (US) custodial units supporting non-US delivery organizations, the US technical load monitor activity is included in this functional area.

(b) Reentry System Mating in Intercontinental Ballistic Missile (ICBM) Units. This function must be observed for a safe and reliable performance and must be evaluated for the effect on weapon system reliability.

NOTE: Loading or mating evaluations for an NSI, or LNSI, not done together with an ORI and/or TAC EVAL,

are optional when an evaluation of the function has been satisfactorily completed in the last 3 months, or when an evaluation is scheduled in the next 3 months, unless the NSI or LNSI is fulfilling those requirements of attachment 9. However, these evaluations are mandatory for an INSI. For US custodial units supporting non-US delivery organizations, the US technical load monitor activity is evaluated together with the NSI or joint safety and security inspection.

(c) Nuclear Weapon, Reentry System, and Air or Ground Launched Missile Maintenance. Maintenance technical operations for each type of weapon assigned must be observed for a safe and reliable performance. (If, because of time or equipment limitations, it is not practical to evaluate an entire reentry vehicle buildup, an evaluation of only a portion of the buildup is sufficient.) Observations include the weapon-to-clip-in mating, rotary launcher buildup, missile warhead mating, and reentry vehicle buildup. These operations must be evaluated for the effect on stockpile reliability. Weapon breakout and convoy operations are included as part of this functional area if not evaluated under (a) above.

(d) Security (Advanced Readiness Posture). The unit's ability to implement an advanced readiness posture must be observed. Security must be evaluated for the effectiveness of providing a secure environment for nuclear resources in weapon storage and alert areas, and during breakout, convoy, and loadings. In oversea areas, the evaluation must include the protection provided during emergency evacuation and destruction operations. At the discretion of inspectors, scenarios may be used to judge the effectiveness of the security forces' reaction to emergencies. If such tests are made, inspectors must:

1. Make sure that the security and safety of WR weapons are not endangered by the design or conduct of the exercise. Scenarios developed for testing and reaction of the security force, including the employment of response forces, should avoid WR weapons if such scenarios could in any way degrade weapon security or safety.

2. Use the MAJCOM threat assessment for the simulated advanced readiness or emergency condition.

NOTE: When a MAJCOM inspector general conducts an NSI of a tenant unit, emergency security operations are not exercised unless the tenant unit controls the security function. However, tenant unit MAJCOM inspectors evaluate the adequacy of the planning for these operations, as authorized in MAJCOM inspection agreements.

(e) Security (Normal Readiness Posture). Security requirements, as explained in Air Force and MAJCOM directives, for the protection of nuclear resources include:

1. The base's response to a peacetime terrorist attack. The evaluation determines the effectiveness of the use of all base resources to defend against an overt attack on areas in which nuclear weapons systems are located or when nuclear weapons systems are in ground convoy. In rendering a judgment on this item, the following should be considered:

a. The realism of the base's assessment of the threat.

b. The effectiveness of the planning, training, and exercising of all base activities in counterterrorist actions.

c. The use of all available resources to counter or recover from a terrorist attack.

d. The command, control, and communications of all forces and agencies involved in counterterrorist activities.

e. The implementation of the base counterterrorist plan, to include at least one exercise based on the MAJCOM threat assessment and local training scenarios. Scenarios should be realistic, but not designed to intentionally result in a conclusion that the attack would have been successful.

f. Nuclear capable Air Defense Tactical Air Command (ADTAC) Air National Guard (ANG) units are not required to demonstrate the ability to respond to a peacetime terrorist attack.

2. The physical security system for weapon storage and alert areas. If minimum standards are not met, effective compensatory measures must be used. All elements of the system must be evaluated, to determine the capability of preventing unauthorized entry to areas containing nuclear weapons or preventing access to nuclear weapons and systems; also to determine the capability to process authorized entry to meet mission requirements. These elements are evaluated:

a. The perimeter barrier system (clear zones, fencing, warning systems, security lighting, and exterior intrusion detection equipment).

b. Detection and assessment capability and procedures.

c. The availability and effectiveness of the system to respond to incidents and alarms.

d. The security condition of maintenance and storage structures and alert weapon system structures.

e. Circulation control procedures (control of entry, egress, and internal movement in restricted areas—vehicles and personnel).

(f) Adherence To Technical, Security, and Safety Directives and Checklists. This includes evaluating the storing, handling, transporting, maintaining, and loading or mating of nuclear weapons.

(g) Emergency Evacuation and Destruction of Nuclear Weapons in Oversea Units. The unit's materiel, plans, and procedures for the emergency evacuation and emergency destruction of nuclear weapons must be evaluated. The unit, as tasked by higher headquarters, must demonstrate their ability to emergency destruct and evacuate nuclear weapons.

(h) Emergency Action Activities and Other Command Post Functions. Where nuclear operations and positive control over nuclear weapons are applicable to a unit's mission, the ability to execute selective and general release and other nuclear control order procedures must be demonstrated.

(i) Logistic Airlift Units. The ability to load and unload weapons must be demonstrated.

(j) Nuclear Safety Program. The purpose of this evaluation is to make sure that nuclear weapons are not exposed to an unsafe environment.

(k) Weapon Access (Definition in Attachment 1 Applies to Weapons and Critical Components). The unit must be evaluated to determine if any uncertified (Personnel Reliability Program (PRP) or maintenance task), untrained (see AFR 122-1), or uncleared individual could or does have unauthorized access to nuclear weapons. If this condition exists, the unit is unsatisfactory. In situations where a reasonable doubt exists, the inspector must make sure that one of those safeguards available in the nuclear surety program (that is, PRP, badge procedures, etc.) prevented or would prevent unauthorized access before awarding an unsatisfactory rating.

(l) Access to Sealed Authenticators, Permissive Action Link (PAL) Code Material and Coded Switch Material. (JCS Pub 13 defines access relative to these materials.) The unit must be evaluated to determine if any uncertified (PRP), untrained (JCS Pub 13), or uncleared individual could or does have unauthorized access to sealed authenticators, PAL code materials, or coded switch material. The unit must also be evaluated to make sure that sealed authenticators, PAL code material, and coded switch materials are stored, controlled, and issued according to JCS Pub 13. The unit is unsatisfactory if unauthorized access or improper storage, control, or issue is discovered.

(2) Other Required Inspection Areas. The management of those additional areas shown below must be inspected, as applicable, during the NSI. The fact that these areas are not "pass or fail" does not preclude the assignment of an unsatisfactory rating if, in the judgment of the team chief, a combination of deficiencies shows that the unit's ability to perform its mission is questionable. Also, if the safety, security, or reliability of nuclear weapons or nuclear weapon systems is degraded, an unsatisfactory rating may be assigned. However, the impact of these deficiencies on the unit's ability to meet mission requirements must be carefully evaluated before assigning a rating of unsatisfactory. Additional areas include:

(a) Loading and services management, to include:

1. The loading standardization, certification, and training program.

2. The condition of equipment and tools.

3. The adequacy of maintenance plans and training schedules.

4. Aircraft certification records, status of aircraft, and procedures used for aircraft certification. (This function applies only to the support of certain non-US delivery aircraft.)

(b) Besides the reentry system mating in ICBM units that is required in (1)(b) above, reentry system mating management must be evaluated, to include:

1. The standardization, training, and certification program.

2. The condition of equipment and tools.

3. The adequacy of maintenance plans and training schedules.

(c) Nuclear weapons and reentry system maintenance, and air or ground launched missile maintenance. Besides the requirement in (1)(c) above, maintenance management must be evaluated, to include:

1. The nuclear maintenance, training, standardization, and certification program.

2. The condition of equipment and tools.

3. The adequacy of maintenance, inspection, and training schedules.

(d) Personnel Reliability Program. This evaluation makes sure that uncertified and decertified personnel are not permitted unauthorized access to nuclear weapons, sealed authenticators, PAL Code materials, or coded switch materials. If unauthorized access is detected, then (1)(k) and (l) above apply.

(e) The staffing, training, equipment, and capability of security forces (including augmenters, if required).

(f) Plans, procedures, and communications for on-base and offbase weapon convoy operations.

(g) Safety requirements (as explained in nuclear weapon system safety rules and command criteria) and availability of safety rules.

(h) The condition of storage, maintenance, loading, or launch facilities; roads in storage areas and between storage and loading or missile launch areas; and ground support equipment, communications, and utilities.

(i) The EOD capability and support of the unit. Besides the evaluation of such areas as the EOD training and certification program and required publications, tools, and equipment, EOD technical operations for each type of weapon (warhead, bomb, reentry system, etc.) for which the team must maintain a current capability must be observed. These observations include render safe procedures and the continuation of render safe procedures, using those training weapons specified in paragraph 2-2b(5).

(j) Supply support actions, to meet requirements for reporting, maintenance, storage or handling, and EOD.

(k) Host-tenant support agreements that affect nuclear surety.

(l) Unit plans and procedures for the support of the air logistic movement of nuclear weapons. If an actual mission is not observed, the plan for supporting these missions should be evaluated for completeness and effectiveness.

(m) Nuclear ordnance commodity management. Evaluate the supply management of nuclear ordnance war reserve (NOWR) major assemblies and related special weapon material for positive accounting and custodial control procedures. For example, the loss of weapon accountability or failure to provide critical spare parts, as a result of account mismanagement, constitutes an unsatisfactory condition and may result in an unsatisfactory NSI rating.

b. Initial Nuclear Surety Inspection. During an INSI, the inspection team evaluates a unit's capability to load, mate, maintain, secure, render safe, or transport nuclear weapons or reentry systems safely and reliably. Aircrews must demonstrate their knowledge of weapon acceptance procedures, nuclear weapon systems safety rules, and nuclear weapon control order authentication. Plans and resources for implementing an advanced readiness posture are also examined. Criteria developed in paragraph 2-2a(1) applies to the INSI, except the rating awarded is "ready" or "not ready."

c. Limited Nuclear Safety Inspection. Procedures must be developed so that MAJCOM inspection teams can evaluate areas causing a "not ready" rating during an INSI, or areas rated unsatisfactory during an NSI. These procedures must include the requirement that a unit be capable of maintaining reliable nuclear weapons in a safe and secure environment. Criteria developed in a and b above apply to all areas evaluated during an LNSI.

d. Rating System. The five-level rating system must be used, except for INSIs and LNSIs conducted because of a significant modification of facilities, the installation of new alarm systems, etc. Ratings of "ready" or "not ready" are used for these types of inspections.

e. Reinspection of Deficient Areas:

(1) The team chief may, before terminating a surety inspection, elect to reinspect any deficient area that contributed to an unsatisfactory rating. The inspection team chief should rule out an on-the-spot reinspection if a general lack of proficiency is noted or if, for any reason, the team chief judges that the suspension of nuclear weapon operations is not in the best interest of weapon or weapon system reliability, security, or safety. The inspection team must not be used for retraining unit personnel.

(2) Electrical message reports must show that the evaluation of the area reinspected was satisfactory, if reinspection supports this rating. The overall unit evaluation may be marginal or satisfactory, depending on those conditions and ratings in other functional areas evaluated.

2-6. Reporting NSIs. The inspection team reports results of surety inspections by an electrical message and prepares other reports as required.

★NOTE: Electrical reports and formal or hard copy surety inspection reports must contain the proper reference (AFR, AFM, technical order (TO), etc.) for those deficiencies cited.

a. Reporting Surety Inspection Results. Results of surety inspections done with an ORI or TAC EVAL are reported according to this regulation. If not done with an ORI or TAC EVAL, results must be reported in the format shown in attachment 4. Use priority precedence when reporting an unsatisfactory or "not ready" rating. Even during MINIMIZE, an inspection team sends an electrical message if units are found "not ready," unsatisfactory, or with limiting factors or major deficiencies (see AFR 100-20). The inspecting team reports limiting

factors or major deficiencies in the message report and describes the corrective action in detail. If the MAJCOM and inspector general staff concur with the action taken by the unit to correct major deficiencies (before completion of the inspection), reporting is not required according to d below.

b. Extract Report (See Sample Format in Attachment 5). HQ AFISC/SN acts as the Air Force liaison regarding extracts that deal with other services or government agencies. From a surety inspection electrical report information, the inspecting team extracts limiting factors and major deficiencies that are the responsibility of a support activity outside those command channels of the inspected unit. This information is put in an "Extract Report," which is sent electrically as follows:

(1) An action copy to the commander of the responsible MAJCOM.

(2) Information copies to the responsible organization and intermediate headquarters and to those addressees of the basic report.

c. Other Reports for Surety Inspections. The MAJCOM inspection team:

(1) Before departing the station, gives enough information to the commander to allow corrective action to be taken.

(2) Prepares other reports according to MAJCOM directives. Copies of each report are sent to each level in the chain of command and to Det 1 AFISC/SNI, Kirtland AFB NM 87117; HQ AFISC/EM/IGX, Norton AFB CA 92409; and HQ USAF/IGS/IGP, Wash DC 20330. The complete report need not be sent to MAJCOMs that provide support; however, those parts that report on functions of the supporting unit should be extracted and sent to the supporting unit's MAJCOM (see b above).

d. Processing Surety Inspection Electrical Reports Containing Major Deficiencies:

(1) The inspected unit must reply to the intermediate command, by electrical message, within 5 workdays after the electrical report is received.

(2) Each intermediate command must reply to the next higher command within 5 workdays after receiving the inspected unit's corrective action report.

(3) The MAJCOM:

(a) Indorses message reports within 10 workdays after receiving the intermediate command's corrective action report.

(b) Sends a follow-up to Det 1 AFISC/SNI, Kirtland AFB NM 87117, every 30 calendar days (if the reply is an interim report) until a final report is submitted.

(c) Complies with paragraph 1-10g on the privileged nature of inspection reports.

e. Processing an Electrical Extract Report. The addressed MAJCOM:

(1) Replies within 30 calendar days after receiving an extract report that has limiting factors or major deficiencies.

(2) Sends the reply to those addressees of the basic report.

(3) Sends a follow-up report each 30 calendar days until the report is closed out.

2-7. Det 1 AFISC Unit Inspections:

a. Det 1 AFISC evaluates the effectiveness of MAJCOM NSIs by performing over-the-shoulder inspections (OTSI) of NSI teams. These inspections also include functional management inspections and LNSIs of selected units.

★b. Det 1 AFISC conducts LNSIs of selected nuclear logistic airlift missions. These inspections must be no-notice inspections (time permitting, MAJCOM inspectors general receive the approximate date of the LNSI through the Trusted Agency system) and are designed to evaluate the overall support provided nuclear resources. Examples of areas that may be evaluated are: aircrew performance relative to nuclear surety matters, transfer and receipt of weapons, weapons handling and tiedown procedures, security, convoys, ground maintenance support for the aircraft, base operations, command post, and base plans for logistic movements, billeting, messing, and transportation for the crew. AFR 55-14 contains pertinent information for the support of these sensitive missions. Reports generated as a result of Prime Nuclear Airlift Force (PNAF) evaluations are sent to applicable MAJCOM staff agencies.

c. While the OTSI is an excellent means of conducting an on-the-spot evaluation of a team's qualifications, organization, and techniques, a more comprehensive method of evaluation is needed to provide a continuing overall assessment of the NSI system. To provide this broad look at the NSI system and actions taken following an inspection, Det 1 AFISC may perform limited NSIs of selected nuclear-capable units.

(1) Det 1 AFISC will select units to be inspected and will coordinate with the MAJCOM to ensure that the inspection will not conflict with other scheduled activities.

(2) The purpose of these inspections is to review deficiencies identified during previous NSIs, the effectiveness of a unit's corrective actions, and the adequacy of higher headquarters staff participation in resolving problems.

d. Det 1 AFISC reports major deficiencies found during the unit's inspection to the MAJCOM inspector general.

Chapter 3

OPERATIONAL READINESS INSPECTIONS (ORI)

3-1. Purpose of Chapter 3. This chapter sets those objectives, policies, and responsibilities for inspecting all Air Force weapon systems. It also provides guidance for MAJCOMs when preparing their ORI programs. This guidance is only specific enough to provide standardization throughout the Air Force. ORIs conducted and reported within this guidance provide the most accurate assessment available of the unit's ability to accomplish wartime requirements.

3-2. Objectives of an ORI:

★ a. Basic objectives of the ORI Program are to provide an assessment of US Air Force unit level readiness to conduct prompt and sustained combat operations in wartime, and to identify and assist in placing deficiencies that adversely impact on a unit's combat capability, in priority order. In the aggregate, ORIs provide an additional measurement of a unit's current system fighting capability and supplement other means of reporting a unit's readiness and sustainability.

b. In order to meet these basic objectives within peacetime constraints, these supporting objectives have been established:

(1) Assess the combat capability of units, as to their expected wartime tasks and environment. Deploy units to actual or simulated wartime locations or dispersal bases, to increase the realism of these assessments, when inspectors general have latitude in the design and conduct of these deployments.

★ (2) Validate unit-level combat readiness reporting in the areas of mathematical accuracy, stated capability (C-rating), and identified limiting factors (LIMFAC) relative to the unit's designed operational capability (DOC) statements. (See attachment 1 for the definition of LIMFAC.) NOTE: Only Unit Status and Identity Report (UNITREP) LIMFACs, as explained in AFR 55-15, influence overall C-ratings and must be reported as a separate category in the ORI electrical message report.

★ (3) Identify and, whenever possible, list in order of priority all other wartime related LIMFACs. NOTE: Inspectors general are authorized to report peacetime LIMFACs in ORI electrical message reports.

(4) Assess unit-level initiatives, to modify the impact of LIMFACs, and to provide recognition and crossfeed of a unit's initiatives.

(5) Evaluate wartime interrelationships among various elements, systems, and commands that are critical to mission success; identify and, whenever possible, list deficiencies in order of priority.

(6) Provide aggregate analyses of ORI results that indicate combat readiness at MAJCOM and HQ USAF levels, and identify and, whenever possible, list in order of priority deficiencies as viewed through the inspection system.

3-3. Policies for Conducting an ORI:

★ a. **General Information.** An ORI should evaluate every aspect of the unit's ability to meet its wartime tasking, as set forth in the scenario. The effectiveness of direct mission support areas must be evaluated and those factors that limit the unit's capability (LIMFAC) must be identified and validated. However, only UNITREP LIMFACs, as explained in AFR 55-15, can be used when assessing and validating the overall C-rating.

b. **ORI Criteria.** Criteria, when used with the proper scenario, provide an accurate measurement of the unit's ability to carry out its wartime requirements. These requirements, as stated in mission directives or theater concepts of operation and war plans, should be the source for developing ORI criteria.

(1) Criteria must be developed, using the five-level rating system in paragraph 1-4d, for those "critical areas" of: initial response, employment, combat support, and the ability to survive and operate (see attachment 1 for definitions). Each of these areas influences combat success; therefore, ratings based on ORI criteria for these areas must reflect the unit's mission capability in the area of operations and the projected combat environment—including chemical warfare defense, if applicable—as set forth in the scenario. An electronic countermeasures capability should be considered.

(2) When approved by HQ USAF/XOO, a system formula that combines and weighs the elements of these areas may be used to determine an overall rating. When this approach is used, critical area ratings that, to the degree possible, reflect a unit's performance in these areas must be reported for Air Staff use.

★ (3) Functional area SOAs and DRUs, such as AFESC, AFOSP, and AFLSC, should be given the opportunity to provide inputs and comments to MAJCOMs on their criteria, as applicable.

c. **Unit Performance Ratings.** An overall unit performance rating must be reported, using the five-level rating system. MAJCOMs and SOAs determine measures of merit for this rating. Overall ratings need not be tied to critical area or subarea ratings. Critical area ratings are based on MAJCOM- and SOA-derived criteria and HQ USAF/XOO-approved criteria. Commands may elect to report performance and resource ratings as separate subareas, to rate superior or substandard performance, and to assess the impact of resource limitations and other LIMFACs (see attachment 6 for message format).

★ d. **Limiting Factors.** LIMFACs must be identified and reported according to paragraph 1-10 and attachment 6. UNITREP LIMFACs, which affect the overall unit C-rating, as explained in AFR 55-15, must be reported as a separate category. MAJCOMs are strongly encouraged to comment on the impact of identified LIMFACs on a unit's combat capability, to identify OPRs for

resolving deficiencies, and to include forecast get-well dates, when appropriate.

e. Developing Scenarios. MAJCOMs must develop scenarios that stress a unit's ability to operate under expected wartime conditions. Scenarios should be modeled on selected war plans, theater concepts of operation, or other mission directives. When applicable, tasking should reflect the unit's primary or secondary designed operational capability or, at a minimum, the unit's mission capability statement. Since ratings are based on a unit's performance in the scenario being evaluated, scenario assumptions should be explicit. The development of scenarios should include an assessment of potential risks, to make sure that the operational safety is not compromised. Scenarios should include, as a minimum:

(1) The ability to mobilize, deploy, and operate in the intended role, from an actual or simulated deployed or dispersal location, for units with a primary mission requiring mobility. If mobility is tested separately, the ORI employment phase should be conducted from a simulated deployed location. Simulated and actual support resources and facilities should be restricted to those types and numbers that would be available at the employment installation or available from lateral, in-theater, or follow-on resources, as proper, in the timing, scope, and assumptions in the scenario.

★(2) A unit's performance of nuclear and conventional munitions functions. This evaluation, to the degree possible, must include: weapons release systems maintenance; weapons storage, handling, and maintenance; convoy; availability (whole round); security; loading and mating; and support equipment. When nuclear events (loading, convoy, security, etc.) are evaluated, these events must be reported as an LNSI in paragraphs 2 and 4 of the ORI electrical message format (see paragraph 2-2a(2)).

(3) An evaluation of interactions and proposed support requirements, between and within system and units critical to the overall mission success.

(4) An evaluation of the base's ability to provide support responsive to wartime scenarios that exercise supported operational units. This evaluation should include the implementation of emergency security options. If a host unit provides support for tenant units, ORIs conducted by the host command should evaluate the support provided to tenant units. When tenant units participate, they are given copies of evaluation results. A tenant command evaluation must be conducted according to the host-tenant agreement. Every effort must be made to conduct simultaneous inspections of multiple units on a base, by using multicommand inspection teams.

(5) An evaluation of a unit's ability to survive and operate under expected wartime conditions. This includes attack response exercises that evaluate the unit's ability to respond to and recover from the type of attack and security incidents expected to occur during wartime. If the unit is tasked to operate in a high-threat area, the ability to perform the mission in a chemical warfare environment must be evaluated.

NOTE: An operation involving WR nuclear weapons must not be conducted while wearing chemical warfare protective equipment. This capability must be demonstrated using training weapons (see paragraph 2-2b(4)).

(6) When applicable, an evaluation of the security police's ability to respond to deployment demands and to employ such elements in their intended role. This evaluation should allow for peacetime security requirements that must be maintained.

(7) The exercise of civil engineering forces, to test their ability to support sustained combat operations under realistic conditions.

(8) A test of command communications systems and operations center procedures.

NOTE: This test, to the extent possible, must include procedures used in the theater of operations in the scenario.

(9) For a missile unit:

(a) The number of missiles to be used during the ORI.

(b) Procedures for realistically testing a unit's launch capability.

(c) The number of simulated launches to be used, to assess the attack scenario being evaluated.

(10) For an aircraft unit, the types of missions to be flown. These ORI missions must closely resemble those in the unit's wartime tasking.

(11) For a unit with nuclear weapons tasks, the inspection of weapons loading and mating, command and control, maintenance, and security. If applicable, contingency support is evaluated according to chapter 2.

(12) An evaluation of situations that pose Law of Armed Conflict problems, to complement and add realism to the overall evaluation (AFR 110-32 and AFP 110-31).

f. ORI Scheduling. The MAJCOM decides the scope and frequency of the ORI.

(1) The frequency of inspection should be governed by need, rather than a fixed time interval. If the MAJCOM inspector general has sufficient indications to be confident in the unit's ability to perform its most probable wartime mission, a secondary wartime mission may be evaluated or the evaluation postponed until confidence levels indicate a need for an ORI.

(2) The ORI should be long enough to accurately assess the unit's ability to perform its wartime mission and to sustain a combat capability equal to its anticipated wartime mission or tasking.

(3) If a nuclear surety inspection (NSI) is to be done at the same time as an ORI, refer to chapter 2.

g. Applicability of ORIs:

(1) Usually, ORIs are conducted for Air Force combat, combat support, and combat service support units, C-rated according to AFR 55-15. ORIs are not conducted for those units exempted by the MAJCOM and HQ USAF/XOO, or designated to receive a mission capability inspection (MCI) according to chapter 4. MAJCOMs are authorized to perform an ORI for units that are not cur-

rently C-rated. A unit whose missions include delivering or controlling nuclear weapons must satisfactorily complete an initial NSI, before assuming nuclear alert or control of nuclear armed weapon systems. This inspection must at least cover the unit's performance of nuclear weapons functions, including breakout, convoy, loading and mating, crew acceptance preflight, command and control, and delivery procedures.

NOTE: The decision to conduct an ORI of a unit reporting C-4 or C-5 should be based on such factors as a unit's mission and tasking and the type and status of the unit's deficiencies, if applicable. When resource deficiencies are the cause of a less than C-3 rating, actions underway to correct them should be emphasized by the inspection team and reported in the electrical message.

(2) MAJCOMs may conduct a limited ORI (LORI) or a phased ORI (PORI) to evaluate a specific area or phase of operations. These inspections are conducted and reported under those same rules that govern an ORI. Areas or phases completed during the LORI or PORI must be counted toward the ORI requirement, unless the unit is being reinspected. However, a complete ORI should consist of no more than two PORIs. Inspectors should exercise caution to make sure that the LORI or PORI does not allow a unit to devote unrealistic resources to the LORI or PORI tasking.

★(3) Initial ORI. MAJCOMs, along with HQ USAF/XOO, determine initial ORI requirements and the inspection scope.

h. Air Reserve Forces (ARF). The gaining MAJCOM sets ARF inspection policies or coordinates with the National Guard Bureau (NGB) or the Air Force Reserve (AFRES) to determine units that are subject to ORIs and criteria to be used. Criteria and scenario development should be according to this chapter and the command supplement (chapter 14), if applicable.

(1) ARF ORIs may be conducted on a prior-notice or no-notice basis. These inspectors should be prior-notice, unless a no-notice initiation is critical to evaluate wartime tasking (for example, Air National Guard (ANG) rapid reactor units). Identification of units subject to no-notice inspections must be coordinated with the NGB and AFRES.

(2) Every effort should be made to conduct inspections during a unit training assembly (UTA) or field training period, to allow the unit to operate with minimum simulation. ARF ORIs may be conducted during Joint Chiefs of Staff (JCS) exercises, with the concurrence of the joint commander.

(3) ARF associate units are to be evaluated as an integral part of the parent unit, during the parent unit's ORI.

(4) If an ARF unit is located on an active-duty installation, every effort should be made to conduct both ORIs at the same time, to make sure that unit coordination and base resource management are thoroughly evaluated.

(5) If an ORI must be conducted during a UTA and cannot be completed, the inspector general is authorized

to coordinate directly with the unit commander to arrange for the completion.

3-4. HQ USAF/XOO, HQ USAF/IG, MAJCOM, and SOA Responsibilities:

a. HQ USAF/XOO:

(1) Sets a suspense date for MAJCOMs to develop criteria for each type unit brought into the ORI program for the first time, and to adjust criteria for each unit whose mission has changed.

(2) Approves or disapproves proposed criteria, changes to approved criteria, and requests for waivers of approved criteria. Sends approval or disapproval to MAJCOMs no later than 30 days after receiving HQ AFISC comments, with information copies to HQ USAF/IGI and HQ AFISC/IGQ.

(3) Initiates and monitors corrections of ORI deficiencies reported to HQ USAF. Any Air Staff office that initiates, plans, or completes a correction must notify HQ USAF/XOO within 30 days. HQ USAF/XOO also monitors and coordinates those staff actions required to complete the correction.

(4) Coordinates with MAJCOMs in the designation of C-rated units that do not require an ORI or MCI (these are called exempted units). Exemptions must be reviewed on an annual basis, with the MAJCOM formal criteria review process.

(5) Makes sure that LIMFACs that affect a unit's combat capability are monitored, to ensure that unit receives maximum support for their resolution.

b. HQ USAF/IG:

(1) Coordinates ORI criteria and changes before HQ USAF/XOO approval. HQ AFISC/IGQ must forward comments and recommendations to HQ USAF/XOO not later than 30 days after receipt of MAJCOM or SOA ORI criteria.

(2) After receiving proposed ORI criteria, HQ AFISC/IGQ may request a field review before or after final coordination. If field review is scheduled before final coordination, comments and recommendations must be sent to HQ USAF/XOO within 30 days of completion of the field review.

(3) Monitor ORIs, to assess scenario realism and objectivity of criteria application.

c. MAJCOMs and SOAs:

★(1) Prepare and maintain current ORI criteria for each type of unit and mission to be inspected. When applicable, functional SOAs and DRUs, such as AFOSP, AFESC, and AFLSC, should be given the opportunity to make inputs and comments on MAJCOM criteria.

(2) Develop ORI scenarios that approximate the unit's expected wartime mission and tasking. Development of multiwing, intercommand, and joint service operations should be emphasized.

(3) Develop a testing program, to assess essential elements that cannot be included in the scenario. The testing program should be flexible enough to complement the scenario, and should not detract from the sense of ur-

gency associated with the ORI. Areas not directly related to the ORI should be tested by standardization and evaluation or during the MEI. ORI testing results, when applicable, should be considered in the unit's ratings.

★(4) Schedule, conduct, and monitor ORIs according to chapter 1. Initial ORI requirements should be coordinated with HQ USAF/XOO.

(5) Thoroughly review all reported LIMFACs and assign offices of primary responsibility (OPR) and office of collateral responsibility (OCR) for their resolution, as required.

(6) Establish procedures to make sure that conflicting guidance, inappropriate or excessive tasking, and major problems are brought to the attention of higher headquarters OPRs and OCRs.

(7) Evaluate unit procedures to collect, compute, and report combat capability data, according to the applicable Air Force reporting system.

(8) Compare the unit's reported readiness status against inspection results. When inspection results do not verify the unit's reported status, recommend an overall status change to the unit's commander.

(9) Send a list of those C-rated units that do not require an ORI (exempted units) to HQ USAF/XOO for coordination and to HQ USAF/IGI; HQ AFISC/IGQ; and the Directorate of Nuclear Surety, Det 1 AFISC/SNI, for information.

(10) As a minimum, submit an electrical message report, in the format shown in attachment 6, on all IORIs, ORIs, LORIs, PORIs, or reinspections.

(11) Provide HQ AFISC/EM and the Directorate of Nuclear Surety trusted agents with schedules, changes, and proposed execution times of all ORIs, as developed.

(12) Formally review criteria each year. This review should begin with a conference, hosted by the MAJCOM, to discuss proposed improvements in criteria. This review should be conducted after the July annual review of AFR 123-1.

(a) Representatives from the MAJCOM staff and

its inspector general, HQ USAF/XOO, and HQ AFISC/IGQ should attend. When criteria are developed for units specifically tasked to employ in another theater, the gaining command is invited to participate.

(b) Proposed criteria sent for HQ USAF approval should be based on results of this conference, any field review, and, when applicable, comments of the gaining command.

(c) The Air Force Communications Command (AFCC) publishes ORI criteria and inspection procedures for combat communications units; AFCC schedules and conducts ORIs according to their supplements. HQ AFCC ensures that criteria and procedures do not conflict with Tactical Air Command (TAC), Pacific Air Forces (PACAF), or US Air Forces Europe (USAFE) supplements.

(13) Submit five copies of proposed criteria or changes to HQ USAF/XOO, Wash DC 20330; three copies to HQ AFISC/IGQ, Norton AFB CA 92409; and one copy to HQ USAF/IGI, Wash DC 20330. Send one copy to Directorate of Nuclear Surety, Det 1 AFISC/SNI, Kirtland AFB NM 87117, if any aspect of nuclear weapons is involved.

NOTE: MAJCOMs must obtain NGB or AFRES coordination before submitting criteria on ARF units.

(14) Publish approved criteria, including changes, as a command supplement (chapter 10), and distribute to affected units and above addressees within 60 days after HQ USAF/XOO approval.

NOTE: Inspectors general may field test new criteria and concepts, as desired. Proposed criteria may be coordinated, by telephone, with HQ AFISC/IGQ and HQ USAF/XOO, for use during a period not to exceed 90 days. However, units to be inspected must have a copy of proposed criteria at least 30 days before the inspection (60 days for ARF units). Ratings reported to higher headquarters must be based on current approved criteria, unless HQ USAF/XOO interim approval has been granted for proposed criteria.

Chapter 4

MISSION CAPABILITY INSPECTIONS (MCI)

4-1. Purpose of Chapter 4. This chapter provides objectives, policies, and responsibilities for conducting MCIs. An MCI may be conducted, at the MAJCOM option, for major Air Force C-rated units and other units designated by MAJCOMs that are not subject to, or are exempt from, an operational readiness inspection (ORI) according to chapter 3. This chapter also provides those overall objectives for developing, standardizing, and analyzing MCI criteria throughout the Air Force.

4-2. Objectives of an MCI:

a. The objective of the MCI is to determine the ability of units, with a direct combat support or combat sustaining role, to accomplish their primary missions. The MCI is the noncombatant equivalent of an ORI, and inspectors conducting an MCI evaluate activities essential to US Air Force warfighting capability. The MCI evaluates a unit's ability to sustain combat operations.

★ b. The MCI should include the evaluation of:

(1) Combat readiness reporting (C-status) and LIMFAC identification, as explained in paragraphs 3-2 and 3-3.

(2) Other reporting and information system accuracy.

(3) Quality and responsiveness of support provided.

4-3. Policy for Conducting an MCI:

a. **General Information.** MCIs are usually conducted as part of management effective inspections (MEI), but may be separate efforts. Commands may elect to substitute an MCI for an ORI for C-rated units, such as Prime BEEF or deployable local ground defense forces. An MCI may also be used to test a unit's readiness capability or for other MAJCOM purposes.

(1) An MCI is designed to test a unit's ability to support mission tasking in US Air Force and theater war or contingency plans or to analyze the quality of the unit's support of its primary objectives. When applicable, the latter would include activities that support long-range defense capabilities planning.

(2) During the MCI, tasking should consider external support, such as transportation sourcing, work force augmentation, and national assets needed to perform the directed mission. The inspector should evaluate the quality of support provided by the unit in light of user requirements. When necessary, inspectors general should request augmentation to help in the evaluation.

b. **MCI Criteria.** The five-level rating system (paragraph 1-4d) must be used, and the unit's overall rating is primarily based on its performance of the assigned mission. When MCIs are given to C-rated units, instead of an ORI, submit specific criteria according to paragraph 3-4c(13).

(1) MAJCOMs determine primary and collateral missions of each type unit to receive an MCI. Mission taskings must be evaluated on a continuing basis with tasking

agencies and units involved. Criteria must be developed that specifically address a unit's ability to meet mission tasking.

(2) Major planning assumptions that cannot be tested in the scope of the MCI should be considered in MAJCOM inspection plans, along with an assessment of the confidence level for these assumptions. This process allows correlation of ORI and MCI efforts and the comparison of mission requirements and mission capabilities.

(3) For a unit with nuclear weapons tasks, see chapter 2.

c. MCI Scheduling:

(1) Conduct MCIs on a notice or no-notice basis, as necessary, to achieve inspection objectives. When applicable, MCIs are conducted to test a unit's response within those warning times specified in war plans. In other cases, the amount of preinspection notification is determined by the MAJCOM. The MAJCOM determines initial, recurring, and MCI reinspection requirements for each type of unit, based on mission priority, performance indicators, and other factors.

(2) Make sure that sufficient inspector expertise is available to make a valid assessment of the inspected function. Augmentation from staff, lateral units, and other MAJCOM inspectors general is usually required when internal expertise is absent or limited.

(3) Carefully consider the total impact of the inspection on the inspected unit. When MCIs are combined with other inspection types, inspection scope, length, and total team size should be adjusted, to make sure that the unit's mission is not adversely affected.

(4) Devise an MCI scheduling system that establishes inspection priorities, scope, and depth, based on such factors as management information systems and other performance indicators, past unit performance, and anticipated payoff. Inspections based primarily on the calendar are to be avoided. Report scheduled MCIs according to AFR 11-13.

(5) When secondary or collateral missions are inspected, criteria and objectives must be developed and distributed at least 30 days before the inspection. Exceptions are command special interest items (SII), approved functional management inspections (FMI), or MAJCOM/CC directed inspections.

4-4. HQ USAF, MAJCOM, and SOA Responsibilities:**a. HQ USAF/AC, MP, PA, RD, XO, LE, and IN:**

★ (1) Review and approve MCI criteria, as applicable, for C-rated units. HQ USAF/XOO acts as focal point for all coordination.

(2) Monitor MCI message reports, to determine the impact of a unit's performance, identified LIMFACs, and noted problem areas on planning factors and assumptions, acquisition programming decisions, and tasking directives.

(3) Request detailed MCI report information and re-

plies to findings, as required, to make sure that applicable action officers are aware of MCI results in their areas of responsibility.

b. HQ USAF/IG:

- (1) Coordinates MCI criteria.
- (2) After receiving proposed MCI criteria, determines the need for a field review before or after final coordination. HQ AFISC/IGQ must send comments and recommendations on MCI criteria to the originating agency within 30 days of receipt.
- (3) Analyzes and compares ORI and MCI results, to determine the relationship between observed simulated combat operations and the reported capability to support and sustain those operations in the depicted ORI scenarios.
- (4) Performs MCIs of C-rated medical and other units, as required.

c. MAJCOMs and SOAs:

- (1) Coordinate with HQ USAF/XOO to determine which units will receive an MCI.

(2) Prepare and maintain MCI criteria for each type unit subject to this inspection.

★(3) Submit proposed criteria for C-rated units according to paragraph 4-3b. For other proposed criteria, send three copies to HQ AFISC/IGQ, Norton AFB CA 92409, and one copy to HQ USAF/IGI, Wash DC 20330. After coordination, these criteria must be published as a command supplement (chapter 11).

(4) Maintain close liaison with staff agencies, to coordinate command policy and inspection guidelines; management information systems (MIS) data; inspection preparation, scope, and results; and inspection and staff assistance areas of responsibility, schedules, guidance, and approach.

(5) Submit reports according to paragraph 1-10a(3) and attachment 7.

(6) Analyze MCI performance; and conduct or recommend an FMI, according to chapter 7, when similar deficiencies are noted in several units that have a significant mission impact or high-potential payoff.

Chapter 5

MANAGEMENT EFFECTIVENESS INSPECTIONS (MEI)

5-1. Purpose of Chapter 5. This chapter establishes objectives, policies, and responsibilities for MAJCOMs, SOAs, NAFs, and other agencies when conducting MEIs. This chapter is only specific enough to provide standardization and analysis throughout the Air Force. This chapter also describes the process used in developing specific MEI criteria. MEIs conducted and reported within this guidance, as supplemented by subordinate agencies, provide commanders and staff agencies an appraisal of the status of US Air Force units, functions, and programs.

5-2. Objectives of an MEI. The purpose of an MEI is to:

- a. Measure unit and functional area performance against resources allocated, and to highlight unit needs.
 - b. When applicable, determine why a unit's performance during an operational readiness inspection (ORI) or mission capability inspection (MCI) exceeds or fails to meet established standards.
 - c. Provide commanders and staff agencies an objective appraisal of the status of US Air Force units, functions, and programs, and a valid information base that is not available through other means.
 - d. Validate inputs to management information systems (MIS), and to evaluate the overall picture that these systems provide.
 - e. Assist units to accomplish their missions more effectively and efficiently. This can be done through the cross-tell of good ideas, the identification and later correction of unit-level discrepancies, and an elevation of problem areas to the level of command required to resolve them.
 - f. Determine applicability and adequacy of US Air Force and MAJCOM directives and supplements.
 - g. Assist units to list in order of priority those efforts needed to accomplish assigned tasks, in direct coordination with commanders and staff agencies.
- NOTE: MEI criteria have a direct bearing on unit priorities.
- h. Make sure that units comply with national law and DOD, US Air Force, MAJCOM, and SOA directives.
 - i. Prevent misuse or mismanagement of assigned resources.
 - j. When applicable, identify limiting factors (LIMFAC) that reduce mission accomplishment.

5-3. Policy for Performing an MEI:

a. General Information. This chapter sets the general policy for the inspection of US Air Force installation support agencies, the evaluation of management, and the compliance of all US Air Force units with directives. Specific MAJCOM and SOA MEI criteria and guidance are in the applicable command supplement (chapter 12).

(1) The identification and subsequent correction of mission-related deficiencies are the primary concern of the inspector. The evaluation and follow-up of important issues take precedence over routine or checklist inspection

duties, when time constraints preclude accomplishment of both. An inspector's time should not be expended on detailed inspections of areas known to be performing well, except as required to validate the management information system (MIS), as a sampling device, or for crosstell purposes. Team chiefs should be aware of and use other available resources to evaluate problem areas found during MEIs. Air Staff, MAJCOM staff, AFAA, and AFOSI are examples of these areas.

(2) HQ USAF/IG monitors MEIs, to assess the mission relevance of Air Force-developed guidelines and how objectively they are applied.

b. Criteria for MEIs. MEI criteria, developed in support of Air Staff and MAJCOM objectives, should directly evaluate the performance of the basic mission, established for those evaluated functions. Caution should be exercised to make sure that MEI criteria are performance related and do not inhibit initiative and the delegation of authority. MEIs must use the five-level grading system.

(1) Direct combat support is usually evaluated during ORIs. Criteria are contained in the applicable command supplement (chapter 10).

(2) These guidelines are used when developing or updating MEI criteria:

(a) Performance determines primary measures of merit. When possible, evaluations are based on observed actions, rather than academic testing or discussion.

(b) Unit-level agencies responsible for such areas as quality control, standardization, training, and safety at the local level, should be evaluated primarily on results and effectiveness of their activities and the quality of their programs, as reflected base- or unit-wide.

(c) When applicable to the mission or function, service provided to customers is a priority-rated area. Attitude, helpfulness, timeliness, and facilities available are key elements in criteria development. In determining the rating, inspectors general should consider the base inspection questionnaire (BIQ), inspector general complaints, commander's feedback system, and inputs to inspectors by units and personnel receiving service.

(d) Unit compliance with higher headquarters policies, programs, and directives should be inspected. However, compliance, in itself, should not be the primary measure of an activity's rating, unless an adverse impact is clearly identifiable. Compliance includes such areas as:

1. Housekeeping and personal appearance standards.
2. Administrative and security procedures and practices.
3. National law.
4. Air Force Safety and Occupational Health Program.

NOTE: When compliance with higher headquarters guidance causes a unit or function to operate inefficiently, or when specific procedures are counterproductive to the intent, inspectors should specifically comment on the

impact in the MEI report and task the OPR for the directive to correct the guidance.

(e) Criteria should be designed to highlight innovative leadership and management actions that:

1. Assign a priority to stated or implied wartime tasks (for example, WARSKIL, augmentation) and involve subordinates in the preparation for those tasks.

2. Concentrate resources on the effective and efficient performance of the stated functional mission.

3. Are reflected in high unit morale, esprit de corps, and initiative.

4. Emphasize those principles of span of control and delegation of authority (AFR 26-2).

5. Demonstrate a concern for the quality of life, as shown in people programs, considering resources available to support them.

(f) Specific criteria for the evaluation of safety programs must be designed to implement AFRs 127-2 and 127-12. Criteria developed must:

1. Determine if the USAF Mishap Prevention Program is effectively managed, by evaluating the:

- a. Direction and leadership provided by commanders on the USAF Mishap Prevention Program.

- b. Support provided by the safety staff to functional managers.

- c. Implementation of program elements by functional managers and supervisors.

- d. Compliance with Air Force program directives.

2. Determine if mishap prevention efforts are effective, by evaluating:

- a. The effectiveness of the guidance and training directed at the prevention of injury and damage.

- b. The inclusion of safety practices into task accomplishment within functional areas.

- c. Hazard awareness.

- d. The effectiveness of hazard identification procedures.

- e. The degree of compliance with safety standards and requirements in the work place.

- f. Mishap experience.

c. MEI Scheduling:

(1) MEIs may be conducted as separate inspection efforts or combined with an ORI, MCI, or NSI. When an NSI is performed, see chapter 2. Inspection credit should be given for areas adequately sampled during other inspections, staff evaluations, standardization evaluations, and other unit-demonstrated performance. When MEIs are conducted with an NSI, ORI, or MCI, usually only mission elements are inspected until the NSI, ORI, or MCI rating is determined. For example, a WARSKIL test during an ORI takes precedence over an MEI in a functional area if a conflict exists. Inspectors should not divert a unit's attention from the primary mission tasking for reasons of convenience.

(2) MEIs are usually conducted on a prior-notice basis; however, MAJCOMs may conduct no-notice MEIs when prior notice would limit the attainment of inspection objectives. Inspectors must use caution not to raise

standards to unrealistic levels when additional notice is given, to preclude unit over reaction.

(3) Besides full-scale inspections, MEIs may be conducted on a broad-scale sampling basis, a narrow functional basis, or form a part of ORIs or MCIs. A MAJCOM inspector's knowledge of units' past and on-going performance and of US Air Force and MAJCOM priorities will allow the MEI scope to be tailored to the expected payoff.

(4) Every effort should be made to reduce the impact of the total US Air Force oversight process on units. Inspectors general contribute to this reduction by:

- (a) Sharing inspection responsibilities among commands, using augmentors from the staff or from other commands, or by performing joint inspections of installations involving host and tenant situations.

- (b) Making sure that inspections are problem-oriented, by reducing MEI schedules when a unit or function is known to be performing well, and by concentrating on identifying and helping to fix problems.

- (c) Maintaining close cooperation with staff agencies, to coordinate visits, the guidance provided, and to review a unit's status.

NOTE: Staff visits to units should be made when MIS indicators, inspectors' general reports, or commanders determine they are needed; ideally, they should be coordinated with unit commanders. Routine preinspection staff visits should be avoided.

5-4. HQ USAF, MAJCOM, and SOA Responsibilities:

a. HQ USAF/AC, PA, MP, RD, XO, LE, and IN:

(1) Monitor objectives of US Air Force functions and programs for which they are responsible. Objectives should directly relate to required mission elements and the quality of support and service provided. Objectives should be listed in priority and should be sufficiently general to apply to all US Air Force units and agencies.

(2) Consider inspection objectives when writing or revising US Air Force functional area guidance.

(3) Include the adequacy of inspection guidance as an agenda item during major conferences.

(4) On request, review specific MEI criteria developed by MAJCOMs, SOAs, NAFs, and other agencies.

(5) Monitor the status of significant deficiencies in applicable functional areas, as identified in MEI reports.

b. HQ USAF/IG:

(1) Reviews MEI criteria developed by MAJCOMs, SOAs, NAFs, and other agencies. Sends MEI criteria, as necessary, to applicable Air Staff agencies for further review. Usually, this review is done within 30 days after the receipt of criteria at HQ AFISC/IGQ.

(2) Schedules a field review after receiving proposed MEI criteria, as required for crosstell purposes.

(3) Analyzes MEI results to determine if identified deficiencies apply to several MAJCOMs and SOAs and indicate problems within one or more functional areas. An Air Force or MAJCOM inspection is considered in these areas and is conducted when the priority, impact, or sensitivity of the issue warrants.

c. MAJCOMs and SOAs:

★(1) Prepare and maintain MEI criteria for each type unit, function, and agency to be inspected. Make sure that criteria relate to the assigned unit mission and that its accomplishment is emphasized. When applicable, functional SOAs and DRUs, such as AFAFC, AFCOMs, AFESC, AFLSC, AFMPC, AFOSP, etc., should be given the opportunity to review and comment on functional criteria.

(2) Submit five copies of MEI chapters or changes to HQ AFISC/IGQ, Norton AFB CA 92409, and one copy to HQ USAF/IGI, Wash DC 20330. After review, criteria is published by the MAJCOM as a supplement (chapter 12).

(3) Maintain close liaison with applicable staff agencies, including the Air Staff when required, to coordinate command policy and inspection guidelines; MIS data; inspection preparation, scope, and results; and inspection and staff assistance areas of responsibility, schedules, guidance, and approach.

(4) Devise an MEI scheduling system that sets in-

spection priorities, scope, and depth, based on MIS data, staff inputs, audit reports, and performance indicators (such as ORI, MCI, and other exercises). When applicable, make sure that MEI objectives include the need to determine why recent ORI or MCI performance exceeded or failed to meet standards.

(5) Make sure that the MEI inspection plan clearly separates the MEI from other inspections. In these instances, carefully consider the total impact of the inspection on the inspected unit.

(6) Report MEI results according to paragraph 1-10.

(7) Analyze MEI performance, and conduct or recommend an FMI, according to chapter 7, when similar deficiencies are noted that have significant mission impact or high-potential payoff.

e. Air Reserve Forces. ARF MEIs are usually conducted on a prior-notice basis. The gaining MAJCOM must coordinate with the NGB or AFRES to set up the interval for which an inspection is scheduled.

Chapter 6

CHEMICAL CAPABILITY INSPECTIONS (CCI)

6-1. Purpose of Chapter 6. This chapter establishes objectives, policies, and responsibilities for inspecting Air Force units tasked for chemical munitions (CM) operations.

6-2. Objective of a CCI. The basic objective of the CCI program is to evaluate a unit's ability to meet its assigned offensive chemical warfare mission. Critical areas include munitions safety, security, storage, handling, assembly, loading, and explosive ordnance disposal (EOD).

6-3. Policies for Performing a CCI:

a. General Information. During a CCI, the inspector should evaluate every aspect of the unit's ability to meet its mission tasking, including all direct mission support areas, and identify those factors that limit the unit's capability (limiting factors).

b. CCI Criteria. Criteria, when administered under the proper scenario, provide the basis for an accurate measurement of the unit's ability to carry out its mission objectives. To provide an objective evaluation of a unit's capability and list deficiencies in order of priority, these policies apply:

(1) Criteria must be developed that establish a five-level scoring system for critical and noncritical areas.

(2) As a minimum, munitions safety, security, storage, handling, assembly, and loading must be considered critical areas.

(3) The overall unit rating must be no higher than the lowest rate received in any critical area.

c. CCI Scenarios. MAJCOMs must develop scenarios that stress a unit under expected mission conditions. Scenarios should be designed to evaluate, as a minimum, the following:

(1) Compliance with all technical, security, medical, safety, maintenance, storage, handling, loading, and delivery directives.

(2) Employment, storage, maintenance, handling, assembling, and loading of CM.

(3) Storage facilities, ground support equipment, and communications.

(4) Physical security, to protect CM during storage, maintenance, local ground movement, and aircraft loading and downloading.

(5) Chemical agent detection and alarm systems.

(6) Convoy routes in the storage area and between storage, maintenance, and aircraft loading areas, including security plans, procedures, and communications.

(7) Training programs and personnel qualified in CM operations.

(8) EOD procedures, equipment, and trained personnel for rendering safe CM.

(9) Aircrew knowledgeable of CM technical order weapons acceptance procedures and local emergency procedures.

(10) Operational center functions to properly support CM operations.

d. CCI Scheduling. MAJCOMs must decide the scope and frequency of the CCI. Frequency should be governed by need, rather than a fixed time interval. However, a CCI should be done with the ORI or MCI.

(1) An initial chemical capability inspection (ICCI) must be conducted within 120 days after each unit is equipped and trained or assumes a commitment involving a major change in its CM mission. If a unit is rated less than satisfactory, the unit must be reinspected and found capable before it assumes its CM mission.

(2) To avoid unnecessary delays in reinspections, the ICCI or CCI team chief may elect to reinspect any deficient area that contributed to an initial less than satisfactory rating. The inspection team chief should rule out an on-the-spot reinspection, if a general lack of proficiency is noted or if, for any reason, the team chief judges that suspension of the CCI is in the best interest of reliability, security, or safety. The inspection team must not be used for retraining unit personnel.

6-4. HQ USAF/XOO, UQ USAF/IG, and MAJCOM Responsibilities:

a. HQ USAF/XOO:

(1) Approves or disapproves proposed criteria (to include changes) and requests for waivers of approved criteria. HQ USAF/XOO sends approval or disapproval to the requesting command within 30 days after receiving AFISC comments, with information copies to HQ USAF/IGI Wash DC 20330, and HQ AFISC/IGQ, Norton AFB CA 92409.

(2) Checks the correction of deficiencies that need action by HQ USAF, as a result of CM inspections. If any other Air Staff office takes or plans corrective action, it must advise HQ USAF/XOO of this within 30 days of the referral.

b. HQ USAF/IG. After receiving proposed CCI criteria, HQ AFISC/IGQ may schedule a field review before or after final coordination. HQ AFISC/IGQ must send comments and recommendations to HQ USAF/XOO within 30 days.

c. MAJCOMs. Each MAJCOM with units that have a CM mission must:

(1) Develop CM inspection criteria.

(2) Make sure that each unit under its jurisdiction with a CM mission is inspected to determine its capability.

(3) Develop a testing program to evaluate unit personnel on any areas not covered by the inspection.

(4) Prepare inspection criteria.

(5) Submit five copies of proposed criteria or changes to HQ USAF/XOO, one copy to HQ USAF/IGI, and two copies to HQ AFISC/IGQ.

(6) Send a copy of each ICCI and CCI inspection team

schedule and any changes to HQ AFISC/EM, Norton AFB CA 92409.

(7) As a minimum, submit an electrical message report on all ICCIs, CCIs, or reinspections, according to paragraph 1-10. When the ICCI or CCI is done with an ORI, results should be reported in the ORI message. For inspections conducted separately, MAJCOMs must devel-

op the message format.

d. Publishing and Distributing Criteria. Approved criteria, including changes, must be published as a supplement (chapter 13), and distributed to affected units and above addressees within 60 days after HQ USAF/XOO approval.

Chapter 7

FUNCTIONAL MANAGEMENT INSPECTIONS (FMI)

7-1. Purpose of Chapter 7. This chapter sets responsibilities, policies, and procedures for proposing, conducting, and reporting FMIs.

7-2. Objective of an FMI. The objective of an FMI is to evaluate the effectiveness of management systems, both horizontally and vertically, by sampling a specific function within two or more units or commands.

7-3. Policy for Conducting an FMI:

a. General Information. Inspectors conducting the FMI should evaluate management systems and identify management problems and noteworthy items within a broad functional area. FMIs involving a single command are usually conducted by that command, but may be conducted by HQ USAF/IG, with the involved command. FMIs involving multiple commands are usually conducted by HQ USAF/IG; however, MAJCOMs are encouraged to perform joint FMIs in areas of mutual interest (for example, Air Force Logistics Command (AFLC) and Air Force Systems Command (AFSC)). Proposals for HQ USAF/IG FMIs should be sent according to those instructions in attachment 2.

b. Interim Finding Review (IFR). At a point about midway through each inspection, an IFR may be conducted to determine whether data support its continuance and if any change in direction is necessary. The team chief should present the review briefing to the reviewing officer (usually the command inspector general).

c. Validation of Findings:

(1) Each finding or observation should be validated with involved agencies, before inclusion in the report.

(2) Validation can occur during the inspection, but may require separate visits and briefings to subject area OPRs.

(3) If agreement cannot be reached, that information should be included in the report.

d. Assigning OPRs. Each deficiency finding should have an OPR assigned. Careful selection is required to make sure that OPRs are at the proper level to correct deficiencies.

e. Final Finding Review (FFR). An FFR may be conducted after the field effort and before writing the report. The team chief should brief the reviewing officer (usually the command inspector general) on results. This review makes sure that inspection objectives have been met, and that root causes are identified and well defined. Major problem areas must be identified and requirements

for briefings to senior staff officers and OPRs determined. Specific guidance should be provided the team chief in tailoring the report to the audience to be reached.

7-4. HQ USAF, MAJCOM, SOA, and Unit Responsibilities:

a. HQ USAF Deputy Chiefs of Staff Level (as OPR). Initiate and monitor corrections of FMI deficiencies reported to HQ USAF. Any Air Staff office that initiates, plans, or completes a correction notifies the HQ USAF OPR within 60 days. The HQ USAF OPR also monitors and coordinates staff actions required to make the correction final or to carry it out.

b. HQ USAF/IG:

(1) Develops general guidelines for the conduct of FMIs.

(2) Monitors all HQ USAF, MAJCOM, and SOA FMIs, to aid in deconflicting inspections, to avoid redundancy in inspection efforts, and to provide coordination assistance if required for a joint effort.

(3) Maintains, in order of priority, a list of prospective FMI subjects. Inputs may be from HQ USAF, MAJCOM, NAF, and unit level. AFAA, MAJCOM, and NAF audit and inspection proposals must be reviewed to avoid redundancy.

(4) Provides microfiche copy of FMI proposals, scope, and itinerary for the use of MAJCOM inspectors general.

(5) Assists MAJCOMs in developing FMI programs, on request.

c. MAJCOMs and SOAs:

(1) Identify specific functions requiring FMIs. Request assistance from HQ USAF/IG, as required.

(2) Provide HQ AFISC/EM, Norton AFB CA 92409, information copies of proposals, schedules, and changes for all FMIs as they are developed.

(3) Perform a follow-up review of FMI findings and recommendations, to make sure that they are completed.

(4) Comment on HQ USAF/IG FMI proposals, as to the scope, itinerary, team composition, and whether the FMI is needed. Include a list of known studies of MAJCOM efforts related to the issue.

d. Other Units. Units that recognize a functional area problem, significant enough to qualify as an FMI subject and impacting two or more units, should send an FMI proposal to the proper NAF and MAJCOM, in the format shown in attachment 2.

Chapter 8

HEALTH SERVICES MANAGEMENT INSPECTIONS (HSMI)

8-1. Purpose of Chapter 8. This chapter sets objectives, policies, and responsibilities for inspecting US Air Force medical treatment facilities, in order to evaluate the effectiveness of Air Force health services management and the readiness of Air Force medical units.

8-2. Objectives of an HSMI:

- a. Determine the readiness of active and reserve medical units to fulfill their wartime contingency missions.
- b. Assess the maintenance of the health of Air Force active duty and Reserve forces personnel.
- c. Measure the effectiveness and efficiency with which health care delivery resources are managed.
- d. Identify any instances of fraud, waste, or error.
- e. Provide an objective appraisal of medical units management and make recommendations to commanders, MAJCOM surgeons, and staff agencies for improvements.

8-3. Policies for Conducting an HSMI:

a. General Information. The Director of Medical Inspection, HQ AFISC/SG, Norton AFB CA 92409, conducts all inspections of US Air Force medical units. During an HSMI, HQ AFISC/SG evaluates the quality of health care provided to US Air Force personnel, by functional elements within medical units. Special emphasis is placed on identifying and recommending solutions to major mission-related deficiencies, including wartime medical preparedness. Therefore, the evaluation and follow-up of important issues take precedence over routine checklist items. HSMI team chiefs use US Air Force medical resources, as required, to evaluate mission performance and resolve problems.

b. HSMI Criteria. HSMI criteria are developed by the Director of Medical Inspection (HQ AFISC/SG) and are coordinated with the USAF Surgeon General (HQ USAF/SG). Direct mission support criteria, in those areas of mobility, medical equipment, personnel, and other resources, are based on the wartime tasking in the applicable theater's concepts of operation and war plans. HSMI criteria are reflected in the Medical Inspection Guide developed and maintained by the HQ AFISC/SG, which is coordinated and published by HQ USAF/SG. This guide should be used in internal inspection programs and in the preparation for HSMIs, but is not intended to be all inclusive.

c. Ratings System Used. The five-level rating system is used internally by HQ AFISC/SG for trend analysis and quarterly reporting purposes.

d. Field Reports. HSMI field reports are left with inspected units; a copy is sent to the MAJCOM/SG. Inspectors summarize findings and recommend corrective actions in final reports.

e. HSMI Scheduling. HSMIs are usually prior-notice inspections, grouped to evaluate several medical units within a command. At the conclusion of these inspections,

the MAJCOM surgeon and commander are briefed on the status of inspected medical programs. Scheduling priorities are based on Air Staff requests, MAJCOM surgeons' priority listings, and these timing objectives:

- (1) For active duty units: 24 to 30 months.
- (2) For ARF units: 30 to 36 months.

8-4. HQ USAF/SG, HQ AFISC/SG, MAJCOM/SG and IG, and Active and Reserve Medical Unit Responsibilities:

a. HQ USAF/SG:

- (1) Coordinates HSMI criteria.
- (2) Monitors corrections of HSMI deficiencies reported to HQ USAF.
- (3) Requests inspections of medical units and investigations of medical functions, as required.
- (4) Identifies special emphasis items for inspection.
- (5) Coordinates and publishes the Medical Inspection Guide.

b. HQ USAF/IG (HQ AFISC/SG):

- (1) Is the office of primary responsibility (OPR) for this chapter.
- (2) Schedules and conducts HSMIs.
- (3) Develops HSMI criteria for HQ USAF/SG coordination.
- (4) Publishes a report of each HSMI.
- (5) Publishes a quarterly review of HSMIs.
- (6) Reports on special emphasis areas designated or requested by HQ USAF/SG or the Air Staff.
- (7) Makes recommendations to HQ USAF/SG for the certification or noncertification of those medical facilities not accredited by the Joint Commission on Accreditation of Hospitals.
- (8) Analyzes HSMI results and conducts functional management inspections, as required or directed, on significant issues.

(9) Conducts investigations, when directed by HQ USAF/IG or SG.

(10) Maintains the Medical Inspection Guide for coordination and publication by HQ USAF/SG.

c. MAJCOM/SG:

(1) Sends reports of staff assistance visits of subordinate active duty and Air Reserve Forces units to HQ AFISC/SGEP, Norton AFB CA 92409.

(2) Assists medical units in resolving problems identified by HSMIs or FMIs.

d. MAJCOM/IG:

(1) Refers medical issues and problems observed during inspections to the MAJCOM/SG, HQ AFISC/SG, or HQ USAF/SG.

(2) Processes formal complaints on medical care according to AFR 123-11.

e. Active Duty and Air Reserve Forces Medical Units:

- (1) When notified of an HSMI, provide:
 - (a) Stenographic and clerical support.

(b) Records, reports, and other documents requested.

(c) A briefing upon arrival of the inspection team. The briefing should include the unit's mission; operations; readiness and contingency plans and training; materiel; personnel; significant problem areas; and limiting factors.

(d) Working space where classified information may be discussed.

(e) Adequate billeting (onbase or contract required). The proximity and privacy of inspectors are essential to aid after duty hours tasks.

(f) Adequate transportation.

(g) A roster of key personnel for each team member.

(2) Resolve problems identified by HSMIs and respond to HQ AFISC/SGEP, through the MAJCOM/SG on indicated report items.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

LEW ALLEN, JR., General, USAF
Chief of Staff

JAMES L. WYATT, JR., Colonel, USAF
Director of Administration

SUMMARY OF CHANGES

This revision more clearly defines MAJCOMs, SOAs, and the National Guard Bureau's (NGB) responsibilities for supplementing this regulation (para 1-3); expands guidance on inspection of Air Force contract administration and contracted functions (para 1-4i); defines the commander's responsibility in instances of fraud, waste, and abuse (para 1-4m(3)); establishes policy for self-inspection programs (para 1-4p); clarifies the responsibility of The Inspector General, USAF, to conduct mission capability inspections (MCI) of Air Force activities (para 1-5a(6)); clarifies the Special Interest Item (SII) Program (para 1-5b(13)); more clearly defines functions of all inspectors general in developing and maintaining scenarios, guides, and criteria for inspections (para 1-6c); establishes a requirement to inspect AAFES exchange and motion picture operations and Code of Conduct training programs (para 1-7c(15)); requires MAJCOM SIIs to be sent to HQ AFISC/IGX each quarter of the fiscal year (para 1-7c(25)); adds definition of Problem Summary Report (para 1-10a(7)); requires reports to be sent to functional SOAs and DRUs, as appropriate (para 1-10d); provides guidance for requests received under the Freedom of Information Act (para 1-10g(8)(b)); provides guidance for disposing of inspection reports (para 1-10h); expands and clarifies policy for conducting nuclear surety inspections (NSI) (para 2-2); clarifies MAJCOM actions to be taken on defense NSI reports (para 2-4); provides guidance on administrative deficiencies in the Personnel Reliability Program (para 2-5a(2)(d)); establishes authority for the Directorate of Nuclear Surety to conduct limited NSIs of nuclear logistic airlift missions (para 2-7b); clarifies unit-level validation of C-rating (para 3-2b(2)); expands combat-related deficiencies to include those related to designed operational capability (DOC) statement and other tasking (para 3-2b(3)); allows functional area SOAs and DRUs to provide comments on ORI criteria (para 3-3b(3)); provides guidance for evaluating limiting factors (LIMFAC) (para 3-3d); provides guidance on evaluating nuclear events during operational readiness inspections (ORI) (para 3-3e(2)); provides guidance for conducting initial ORIs (para 3-3g(3)); allows SOAs and DRUs to provide inputs to ORI criteria (para 3-4c(1)); identifies HQ USAF/XOO as focal point for coordination of MCI criteria (para 4-4a(1)); changes requirements for submitting criteria to HQ AFISC/IGQ and HQ USAF/IGI (para 4-4c(3)); provides for functional SOAs and DRUs review and comment of management effectiveness inspection (MEI) criteria, when applicable (para 5-4c(1)); adds definitions Limiting Factor; Self-Inspection; and Weapon Access, Authorized and Unauthorized; (atch 1); and establishes the requirement on electrical messages to provide references for NSIs (atches 4, 5, and 6).

Explanation of Terms

Ability To Survive and Operate (Operational Readiness Inspection (ORI) Critical Area). Measures required to protect or restore a unit's combat capability. These measures make sure that the unit can continue to prepare or perform its wartime mission. Areas for evaluation include preattack and attack actions to enhance survivability, and postattack actions to recover from damage and operate under those constraints of the postattack environment. When applicable, inspectors should consider the impact of chemical warfare and electronic countermeasures capability in their rating of ability to survive and operate. For aircraft units, the ability to survive and operate includes all ground activities (that is, prelaunch and postrecovery).

Assigned Wartime Mission. Operational tasks assigned to a unit by its major command, through war, battle, or strike plans, or other similar orders.

C-rated Unit. Units reporting combat readiness status information, according to AFR 55-15.

Chaplain Services Management Inspection. An Air Force inspectors general inspection that evaluates the chaplain service function.

Chemical Capability Inspection (CCI). An inspection of a unit tasked for chemical munitions (CM) operations, to evaluate its capability to perform a CM mission.

Chemical Munitions. Bombs, projectiles, grenades, or similar munitions containing chemical warfare agents. As used here, this term does not include defoliants; herbicides; plant growth regulators; incendiary, fire, smoke, riot control munitions; and like items.

Combat Support (Operational Readiness Inspection (ORI) Critical Area). Support functions that directly affect a unit's ability to accomplish its wartime mission. Some examples are weapons breakout, buildup, and loading; security; war reserve materiel (WRM) readiness; and civil engineering forces (including Prime BEEF). Combat support ratings in ORIs are *not* necessarily associated with the combat support group organization. Combat support ratings cross organizational lines and include all elements required to support the mission.

Combat Support Elements. Those elements whose primary missions are to provide support to the combat forces and which are a part, or prepared to become a part, of a theater, command, or task force formed for combat operations.

Combat Support Unit. The military organization in direct support of a combat organization but not actively engaged in combat, although it may receive hostile fire.

Combat Unit. The military organization expected to be offensively or defensively employed to fire weapons, conduct reconnaissance, or engage in other operational activity directly related to the combat. A combat unit is likely to receive hostile fire.

Critical Areas. Areas containing important elements or actions that receive special emphasis during inspections. (For operational readiness inspections (ORI), the four critical areas are: initial response, employment, combat support, and ability to survive and operate. These ORI areas are rated separately for emphasis; however, overall ratings need not be tied to these critical areas or any sub-area. For nuclear surety inspections (NSI), critical areas identified in paragraph 2-5 are "pass or fail;" an unsatisfactory critical area rating results in an unsatisfactory NSI rating.)

Defense Nuclear Surety Inspection (DNSI). A Defense Nuclear Agency (DNA) inspection of a nuclear unit, as explained in Technical Order (TO) 11N-25-1. Areas examined include nuclear weapons technical operations, maintenance, storage, and logistic movement, to include handling, safety, and security for these functions. NOTE: MAJCOMs may accept the technical portion of a DNA DNSI (reference TO 11N-25-1, table 2-6) as fulfilling the nuclear weapon technical portion of the nuclear surety inspection, if desired.

Employment (Operational Readiness Inspection (ORI) Critical Area). The tactical usage of aircraft in the desired area of operation. In airlift operations, a movement of force into or within a combat zone or objective area, usually in the assault phase. Success in employment is directly influenced by the innovative use of the principle of war and tactics (USAF 1, 2, and 3 series manuals) in meeting the enemy threat.

NOTE: For the purpose of ORI criteria development and inspection reporting, the term "employment" is expanded to include the unit's combat mission, whether it involves aircraft or not; for example, aerial port, communications, security police, civil engineering, medical, tactical air control, and intercontinental ballistic missiles.

Functional Management Inspection. An inspection designed to examine and evaluate the management of a specific program or function.

Graduated Combat Capability (GCC). A statement, in the order of priority, of a unit's combat capability designed to meet the intended employment of the unit. Each capability is defined by a level.

Health Services Management Inspection (HSMI). An inspection designed to evaluate the management of functional elements within medical units and to report significant problems affecting mission accomplishment.

Initial Chemical Capability Inspection (ICCI). Any inspection designed to evaluate a unit's readiness to assume a chemical munitions mission.

Initial Nuclear Surety Inspection (INSI). An inspection designed to evaluate a unit's readiness to assume a nuclear weapon mission.

Initial Operational Readiness Inspection (IORI). An inspection designed to evaluate a unit's readiness to assume its wartime mission.

Initial Response (Operational Readiness Inspection (ORI) Critical Area). Actions necessary to convert from peacetime to wartime operation. Some examples are alert force reaction, force generation, mobility, deployment, or dispersal and force regeneration after deployment.

Limited Operational Readiness Inspection (LORI). An inspection more limited in scope than an operational readiness inspection. During an LORI, the inspector concentrates on specific areas of the unit's mission and does not assess a unit's total capability.

Limited Nuclear Surety Inspection (LNSI). An inspection more limited in scope than a nuclear surety inspection. An LNSI may be used to inspect nuclear weapons units in one or more major areas or functions listed in MAJCOM criteria.

Limiting Factor (LIMFAC). A limiting factor is a deficiency, beyond the inspected unit's ability to correct, that directly and adversely impacts on the capability of the unit to accomplish its mission(s). Included in this definition are LIMFACs that affect a unit's overall C-rating (Unit Status and Identity Report (UNITREP) LIMFACs), as explained in AFR 55-15; other wartime LIMFACs that relate to operations plans (OPLAN) or other wartime taskings; and LIMFACs that impact on nonwartime mission accomplishment.

Logistic Airlift Unit. A unit that transports nuclear weapons or nuclear weapon critical components by cargo aircraft.

Major Area (Nuclear Surety Inspection (NSI)). A grouping of functions of a nuclear weapon unit, as identified in the inspection criteria of a MAJCOM, such as command and management, explosive ordnance disposal (EOD), munitions supply, security, support, facilities and equipment, and safety.

Major Deficiency (Nuclear Surety Inspection Only). That portion of a unit's mission that cannot be accomplished because of conditions within the unit's ability to control.

Major Change (Nuclear Surety Inspection Only). One or more of the following (see attachment 9):

- a. Assignment of responsibility for a new Mark or Mod Program Numbered Weapon to a nuclear weapon unit;
- b. Assignment of a new delivery system to an operational unit with a nuclear capability;
- c. Resumption of a nuclear mission;
- d. Movement of a nuclear weapon unit to a new location or new facilities; or
- e. Major modification of facilities or occupancy of new facilities for storage, maintenance, or alert of nuclear weapons.

Management Effectiveness Inspection (MEI). An inspection of a unit's leadership and management, as shown in mission and functional area performance, installation support, people programs, service to customers, and compliance with directives.

Mark Program Number. The number that identifies a nuclear weapon. This number is preceded by a letter to identify the type of weapon ("B" for bomb, "W" for warhead).

Mission Capability Inspection (MCI). An inspection equivalent to an operational readiness inspection for non-combatant units. The objective is to ascertain the unit's or system's ability to support and sustain designated combat requirements.

No-notice Inspection. An inspection conducted without advance notice to the unit to be inspected.

Nuclear Contingency Mission Support. Those responsibilities of a base to which a unit (dual base, augmentation forces) will be deployed and from which the unit will do its nuclear mission. The term also refers to those responsibilities of a base from which nuclear weapons are deployed to a forward location or to an Air National Guard unit.

Nuclear Surety Inspection (NSI). An inspection designed to determine a unit's degree of readiness to conduct its nuclear mission and effectively manage nuclear resources.

Nuclear Weapon Unit. A wing, squadron, or other designated unit or base that has a mission to receive, store, handle, test, maintain, transport, load and unload, mate and demate, stand alert, or perform strike missions with nuclear bombs or warheads. The unit need not possess nuclear weapons. For purposes of this regulation, an explosive ordnance disposal (EOD) team, with a nuclear mission, is a nuclear weapon unit. For US custodial units supporting non-US delivery organizations, the US technical load monitor activity is considered the load and unload function mentioned above.

Operational Readiness. The capability of a unit or formation, weapon system, or equipment to perform the mission or functions for which it was organized or designed.

Operational Readiness Inspection (ORI). An individual or multiple unit inspection specifically designed to assess the degree of operational readiness.

Operational Readiness Inspection (ORI) Constraints. Factors that limit the ability of the inspector general to fully assess the unit's combat capability. Lack of airspace or range availability, poor weather, loss of airlift, or refueling support are examples.

Over-the-Shoulder Inspection (OTSI). An inspection performed by inspectors from a higher echelon of command to evaluate the effectiveness of a subordinate command inspection. Evaluation includes criteria application, scenario realism, mission oriented inspection standards, and team management.

Phased Operational Readiness Inspection (PORI). An inspection designed to concentrate on one or more phases of a unit's capability and used to support a continuous assessment of a unit's operational readiness. A PORI does not assess the total capability.

Self-inspection. An organized method of internal review that focuses on a manager's critical areas and resources.

Surveillance Inspection. A Defense Nuclear Agency over-the-shoulder inspection of a nuclear surety inspection team, conducted according to Technical Order 11N-25-1.

System Acquisition Management Inspection (SAMI). Inspections performed by The Inspector General, USAF, to evaluate the effectiveness of the acquisition process and to identify deficiencies in the management of specific acquisition programs.

Tactical Evaluation. Unit level inspections, conducted by the North Atlantic Treaty Organization (NATO), specifically designed to assess the degree of operational readiness of assigned or deployed tactical units. Criteria are contained in the Supreme Headquarters Allied Powers Europe (SHAPE) Tactical Evaluation Manual (STEM).

USAF Program, Nuclear Weapons Capabilities and Equipage (PS) Document. The US Air Force program document that lists current and planned capabilities of nuclear weapon units. It is the guide by which inspection requirements are set. Usually, the assignment of specific unit nuclear missions is done by MAJCOMs.

★ **Weapon Access.** Authorized Access—Entry into an exclusion (no-lone zone) area and close physical proximity to a nuclear weapon or critical component by one or more individuals who are either properly escorted or are part of a qualified two-member concept team for the purpose of performing an authorized task. Unauthorized Access—entry into an exclusion (no-lone zone) area and close physical proximity to a nuclear weapon or critical component by one or more individuals who are neither escorted nor part of a qualified two-member concept team and who have the time to tamper with or damage nuclear weapons or critical components.

Weapon System. A weapon and those components required for its operation.

Inspection Proposal Format

Inspection proposals may be used for internal use or to request a higher headquarters inspection. The following is a sample format:

1. **Subject.** Briefly describe the inspection subject.
2. **Time Frame.** Include the estimated duration of the inspection.
3. **Scope.** Describe the coverage needed to carry out the purpose; and identify locations, commands, or functional areas where the problem or area of interest may be found.
4. **Rationale.** Include background information relating to the subject. This could include information from a previous inspection or staff visits, data gathered from the Air Force Audit Agency, GAO reports, or reports from other agencies. Provide rationale why inspection should be conducted at HQ USAF/IG, MAJCOM, or NAF level.
5. **Expected Savings.** Express expected payoff in terms of resources. Use this paragraph to expand on the expected outcome of the inspection. Anticipated cost effectiveness of conducting the inspection is essential.
6. **Team Composition and Justification.** List each Air Force specialty code (AFSC) required and why each AFSC is necessary to the conduct of the inspection. Augmentation requirements from outside the inspecting agency must also be explained.
7. **Itinerary.** List all agencies to be inspected; that is, MAJCOMs, SOAs, units, contractors, Air Staff agencies. MAJCOM lists should include the number of bases to be inspected in each command. (A definitized itinerary, including dates, can be accomplished later.)

NOTE: Items 6 and 7 are not required when requesting a headquarters to perform an inspection.

★ Special Interest Item (SII) Instructions

A3-1. Purpose of an SII. SII's are designed to determine the extent and impact of known or suspected problems, to identify specific deficiencies, or to confirm that a problem has been resolved. They are not to be used for establishing or enforcing policy.

A3-2. Description of an SII. Candidate subjects for the SII program must be staffed by AFISC before implementation. During the staffing process, each SII is considered for implementation under one of these four categories:

a. One-Time Survey. If the issue involves a functional area that is routinely inspected by most MAJCOMs or SOAs, AFISC may request that MAJCOM or SOA inspectors evaluate the status of the candidate SII, based on past inspections.

b. One-Time Sample. If the issue is in an area that is not routinely inspected by most MAJCOMs or SOAs, or the extent of the problem is unknown, AFISC may ask that a checklist be run on the next proper inspection.

c. Limited-Scope SII. If the results of a sample or survey indicate a problem in several MAJCOMs or SOAs, or if more data are required, a Limited-Scope SII may be directed. The scope may be limited in time, in number of inspections, or in the number of MAJCOMs or SOAs involved.

d. ALMAJCOM and SOA SII. If the issue or problem is pervasive or of major importance to all MAJCOMs and SOAs, an ALMAJCOM and SOA SII may be conducted upon The Inspector's General approval. The time period is usually 6 months to a year; however, the SII must be cancelled in whole or in part when its objectives are achieved.

A3-3. Request Procedure. Requests for SII's may come from any level within the Air Force. All requests must be submitted by letter, through command channels (including the commander and command inspector general for MAJCOM and SOA requests), to HQ AFISC/IGX. Request format is as follows:

a. Subject: (Proposed title of SII.)

b. Purpose: (Clearly defined statement of the problem.)

c. Background: (Information to provide inspectors a perspective and foundation from which to begin an investigation of the suspected problem area.)

d. Actions Required: (AFISC provides this information to inspectors examining the subject. Requesters may provide suggested actions required for the inspector's guidance.)

e. Reply Instructions: (AFISC provides these instructions to inspectors. Usually after the inspection of each unit, a report on the results of applying the SII is required. Specific instructions are included in each SII.)

f. Inspection Period: (Desired inclusive dates for the proposed SII inspection period.)

g. Inspection Guide: (A list of questions, in checklist form, to be used as key problem indicators for each proposed SII. This checklist or inspection guide must be as brief and concise as possible and must be submitted as a separate attachment.)

A3-4. General Information:

a. Special interest items are limited to one specific subject affecting more than one MAJCOM or SOA, the Air Force Reserve, or the Air National Guard.

b. The number of SII's in effect at any given time is controlled by AFISC. No specific limits are established on the number of SII's in effect; however, one SII in a functional area (for example, supply, security police, transportation, etc.) is the objective.

c. HQ USAF/IG evaluates all ALMAJCOM and SOA SII proposals. SII's approved by HQ USAF/IG are numbered by HQ AFISC/IGX and sent to all MAJCOMs, SOAs, and the Air Reserve Forces for action or information.

d. Agencies requesting SII's must review current inspection policies, guidance, and criteria to preclude recurrence of the need for SII's in the area.

NSI ELECTRONIC MESSAGE FORMAT

JOINT MESSAGEFORM						SECURITY CLASSIFICATION (as appropriate)				
PAGE	DTG-RELEASE TIME			PRECEDENCE		CLASS	SPECAT	IMF	CIC	ORIG MSG IDENT
OF	DATE TIME	MONTH	YR	AC	INFO					
	(as appropriate)							(as appropriate)		
BOOK	MESSAGE HANDLING INSTRUCTIONS									
<p>FROM: (COMMAND) INSPECTOR GENERAL TEAM (BASE INSPECTED (// TO: (FUNCTIONAL ADDRESS SYMBOL) (// (as appropriate) (UNIT) (wing, group, squadron) (BASE) (//CC// (DIVISION) (if applicable) (BASE) (//CC// (NAF) (if applicable) (BASE) (//CC//IG (MAJOR COMMAND) (BASE) (//CC//IG</p> <p>INFO: HQ USAF WASH DC (//ZOO/LEY//IGF/IGS// HQ AFOSP KIRTLAND AFB NM (//SPO// HQ AFISC NORTON AFB CA (//IG// DIRECTORATE OF NUCLEAR SURETY KIRTLAND AFB NM (//SNI//</p> <p>(Appropriate Classification) (FORMERLY RESTRICTED DATA--ATOMIC ENERGY ACT 1954, if applicable) PRIVILEGED DOCUMENT--REF AFR 123-1. SURETY INSPECTION REPORT.</p> <p>REF:</p> <p>A. AFR 123-1. B. OTHER (as applicable).</p> <p>*1. AN (A) (INITIAL NUCLEAR SURETY) (NUCLEAR SURETY) (LIMITED NUCLEAR SURETY) INSPECTION OF THE (unit and base) WAS DONE (date) THRU (date) BY THE (command) INSPECTOR GENERAL IAW AFR 123-1.</p>										
DISTR (NOTE: USE THIS FORMAT FOR INSI, NSI, LNSI MESSAGE REPORT WHEN NOT CONDUCTED DURING ORI, MCI, TAC/EVAL.)										
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JOINT MESSAGEFORM							SECURITY CLASSIFICATION			
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<p>FROM:</p> <p>TO:</p> <p>SYSTEM(S) INSPECTED WAS (WERE) (weapon system/Mark Program number). TECHNICAL OPERATION(S) OBSERVED WAS (WERE) (stipulate WR or tng units, e.g., -1A on B61 WR, or PC exchange on B43 TR. Also include specific EOD operations observed, e.g., RSP on B57 TYPE 3B, etc). AREAS COVERED CORRESPOND TO (specify appropriate part), (COMMAND CRITERIA). (Note: Include following statement if EOD or security support was a responsibility of another command: "THE INSPECTION INCLUDED AN EVALUATION OF THE TECHNICAL EOD (SECURITY) SUPPORT PROVIDED BY (unit and major command).") (Findings must be reported in paras 3 and 4, if applicable.) (INSI) (NSI) (LNSI) TEAM CHIEF WAS (grade and name). (For reinspections, reference the message and date of the previous inspection.)</p> <p>2. UNIT INSPECTION RATING: (READY/NOT READY) (for INSI), or (OUTSTANDING/EXCELLENT/SATISFACTORY/MARGINAL/UNSATISFACTORY) (for NSI, LNSI).</p> <p>*3. THERE ARE (NO) (THE FOLLOWING) LIMITING FACTORS. (Describe in detail to indicate effect on the unit mission. Indicate functional</p>										
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<p>FROM:</p> <p>TO:</p> <p>manager responsible for corrective action.) THE (support organization/higher command) HAS FAILED TO PROVIDE (describe the problem and support required). (Provide appropriate references.)</p> <p>*4. THERE ARE (NO) (THE FOLLOWING) MAJOR DEFICIENCIES. (Describe as above. Provide appropriate references.)</p> <p>5. REMARKS: (Use this paragraph to report corrective actions taken on limiting factors and major deficiencies during the inspection. Include any major command special subjects that relate to nuclear weapon operations that were evaluated.)</p> <p>6. EXTRACT REPORTS: (NONE) (or describe--for example: "AN EXTRACT REPORT WAS SENT TO (major command) REGARDING ITEMS (as applicable) ABOVE. REF (inspecting team's symbol--classification--msg rpt--DTG.")</p> <p>7. . PROCESSING OF THIS REPORT (identify items to be answered) IAW</p> <p>AFR 123-1, PARA 2-6, (IS) (IS NOT) REQUIRED. (Processing is required if the inspected unit has a limiting factor or major deficiency.)</p>										
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<p style="margin: 0;">FROM:</p> <p style="margin: 0;">TO:</p> <p style="margin: 0;">NOTES:</p> <ol style="list-style-type: none"> <li style="margin-bottom: 10px;">1. Classification is determined as a result of message content. Association of INSI, NSI, OR LNSI alone with a specific unit site is unclassified. 2. If a BROKEN ARROW exercise was evaluated during the inspection, report results in paragraph 5, including rating and problem areas. 										
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NSI ELECTRONIC MESSAGE FORMAT (EXTRACT)

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BOOK	MESSAGE HANDLING INSTRUCTIONS									
<p>FROM: (COMMAND) INSPECTOR GENERAL TEAM (LOCATION)//</p> <p>TO: (FUNCTIONAL ADDRESS SYMBOL OR TEAM IDENTIFICATION)//</p> <p>HQ (MAJOR COMMAND) (BASE)//(APPROPRIATE STAFF)//</p> <p>(NAF) (if applicable) (BASE)//CC//IG</p> <p>(DIVISION) (if applicable) (BASE)//CC//</p> <p>(UNIT) (wing, group, squadron--or all, if applicable)</p> <p>(BASE)//CC//</p> <p>INFO:HQ USAF WASH DC//XOO/LEY//IGF/IGS//</p> <p>HQ AFOSP KIRTLAND AFB NM//SPO//</p> <p>HQ AFISC NORTON AFB CA//IG//</p> <p>DIRECTORATE OF NUCLEAR SURETY KIRTLAND AFB NM//SNI//</p> <p>(Appropriate classification) (FORMERLY RESTRICTED DATA--ATOMIC ENERGY ACT 1954, if applicable) PRIVILEGED DOCUMENT--REF AFR 123-1.</p> <p>SUBJ: EXTRACT REPORT (U)</p> <p>A. AFR 123-1.</p> <p>B. OTHER (as applicable).</p> <p>1. THIS IS AN EXTRACT REPORT COVERING LIMITING FACTORS/MAJOR DEFICIENCIES NOTED DURING AN (INITIAL NUCLEAR SURETY) (NUCLEAR SURETY) (LIMITED NUCLEAR SURETY) INSPECTION DONE AT THE (unit and</p>										
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<p>FROM:</p> <p>TO:</p> <p>base), (date) THRU (date) BY THE (command) INSPECTOR GENERAL IAW AFR 123-1. (INSI) (NSI) (LNSI) TEAM CHIEF WAS (grade and name).</p> <p>*2. (Unit) IS A TENANT ON (base). IAW SUPPORT AGREEMENT (describe) DATED (date), THE (organization) WAS RATED (rating) AND (if applicable) HAS NOT FURNISHED ADEQUATE SUPPORT WHICH RESULTED IN THE FOLLOWING (LIMITING FACTORS/MAJOR DEFICIENCIES). (Describe limiting factors/major deficiencies; include functional manager responsible for corrective action; and provide appropriate references.)</p> <p>3. REMARKS. (if applicable) (Name of representative from MAJCOM not conducting the inspection) _____ REPRESENTATIVE CONCURRED/NONCURRED WITH EXTRACT REPORT.</p> <p>4. PROCESSING OF THIS REPORT IAW AFR 123-1, PARA 2-6 (IS) (IS NOT) REQUIRED.</p>										
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ORI Electrical Message Format

Security, precedence, and addressing guidance are in paragraph 1-10e and g.)

Section A. Executive Summary

1. Administrative Details:

- a. Type inspection (ORI, LORI, PORI, or reinspection).
- b. The unit inspected, location, and weapon system.
- c. The inspecting agency and dates of inspection.
- d. Concurrence or nonconcurrence with unit C-rating, or N/A as appropriate. If nonconcurrence, explain why.
- e. If this inspection is a LORI, PORI, or reinspection, include date and time group of previous messages.

EXAMPLE: An Operational Readiness Inspection of the (unit inspected) was conducted by the (MAJCOM or SOA IG) IAW AFR 123-1 during the period (Inclusive Dates). The unit is equipped with (type equipment). The inspector general (concurs) (nonconcurs) with reported UNITREP ratings: (unit C-(1, 2, 3, 4, 5), (unit) C-(1, 2, 3, 4, 5), etc. _____). (Format may be altered as the situation dictates.)

2. Unit Rating and Unit Capability LIMFACs. State the unit's overall rating, if awarded, and briefly describe all limiting factors that impact on the ability of the unit to accomplish its tasked missions. This paragraph should also include any NSI or CCI limiting factor, if these inspections are conducted during the ORI.
NOTE: UNITREP LIMFACs, as explained in AFR 55-15, must be reported as a separate category.

3. Critical Area Ratings. Indicate the five-level grade awarded these critical areas and a reference to amplifying information, if appropriate. If an area is not evaluated or rated, briefly indicate why. Less than satisfactory ratings must be briefly explained. Subarea rating of performance and resources are encouraged.

a. Initial Response. (Rating)

- (1) Performance. (Optional)
- (2) Resources. (Optional)

b. Employment. (Rating)

- (1) Performance. (Optional)
- (2) Resources. (Optional)

c. Ability to Survive and Operate. (Rating)

- (1) Performance. (Optional)
- (2) Resources. (Optional)

d. Combat Support. (Rating)

- (1) Performance. (Optional)
- (2) Resources. (Optional)

4. Nuclear Surety Inspection (NSI). If an NSI was conducted with the ORI, indicate the overall grade and list any major deficiencies. If a recheck was required to receive a satisfactory rating, so indicate. (Details of the inspection should be included in Section B4.) Report "Not applicable" if no NSI was performed. When an NSI is conducted with an ORI, state, "Processing of this report according to AFR 123-1, paragraph 2-6 (is) (is not) required."

5. Chemical Capability Inspection (CCI). If a CCI was conducted with the ORI, indicate the overall grade. If a recheck was required to receive a satisfactory rating, so indicate. (Details of the inspection should be included in section B5.) Report "Not applicable" if no CCI was performed.

6. OTSI Concurrence or Nonconcurrence. This paragraph applies when HQ USAF/IG or a MAJCOM inspector general team conducts an OTSI. Nonconcurrence requires an explanation. Report "not applicable" if no OTSI was performed.

Section B. Inspection Details

1. Scenario and Purpose. Briefly describe the scenario and the purpose of the inspection, including operation plan (OPlan) or contingency plan (CONPLAN) supported, tasking levels, threats simulated, etc.

2. Functional Area Ratings. List the functional areas that the particular MAJCOM considers important, such as operations, maintenance, resources, etc., and provide a rating for each. If less than satisfactory, rate the specific subarea and explain. If a Broken Arrow exercise was evaluated during the inspection, report results here, including rating and problem areas.

3. ORI Constraints. Briefly describe any limiting factors that affected the inspector's general ability to adequately assess the unit's combat capability during the ORI.

4. Nuclear Surety Inspection (NSI). If an NSI is conducted at the same time as the ORI, report the name and grade of the team chief, technical operations observed, the effect of the NSI on the ORI, and any other remarks that apply. Provide proper references.

5. Chemical Capability Inspection (CCI). If a CCI is conducted at the same time as the ORI, report those technical operations observed, the name and grade of the team chief, the effect of the CCI on the ORI, and any other remarks that apply.

6. Statistics. Report enough statistics to give a clear picture of the inspection.

7. Unit ORI History. Include the date and results of the last inspection and any other remarks that apply.

8. Additional Remarks.

MCI Electrical Message Format

Security, precedence, and address guidance are in paragraph 1-10e and g.)

Section A. Executive Summary**1. Administrative Details:**

- a. The unit inspected, location, and weapon system.
- b. The inspecting agency and dates of inspection.
- c. Inspector's general concurrence or nonconcurrence with unit C-rating, if applicable. If nonconcurrence, explain why.
- d. If this is a reinspection, include date and time group of previous messages.

EXAMPLE: A Mission Capability Inspection of the (unit inspected) was conducted by the (MAJCOM or SOA IG) IAW AFR 123-1 during the period (inclusive dates). The unit is equipped with (type equipment). The inspector general concurs or nonconcurs with the reported UNITREP ratings (unit) C-(1, 2, 3, 4, 5), (unit) C-(1, 2, 3, 4, 5), etc. (Format may be altered as the situation dictates.)

2. Unit Rating and Capability LIMFACs. State the unit's overall rating, if awarded, and briefly describe all limiting factors that impact on the ability of the unit to accomplish its tasked mission. This paragraph should also include any NSI or CCI limiting factor, if these inspections are conducted during the MCI.

NOTE: UNITREP LIMFACs as explained in AFR 55-15, must be reported as a separate category.

3. Major or Critical Area Ratings. Indicate the grade awarded to major or critical areas, as described in MAJCOM or SOA criteria. Less than satisfactory ratings must be briefly explained. Subarea ratings for performance and resources are encouraged.

4. OTSI Concurrence or Nonconcurrence. This paragraph applies when HQ USAF/IG or a MAJCOM inspector general team conducts an OTSI. Nonconcurrence requires an explanation. Report "not applicable" if no OTSI was conducted.

Section B. Inspection Details

1. Scenario and Purpose. Briefly describe the scenario, if used, and the purpose for the inspection, including OPLAN or CONPLAN supported, tasking levels, threats simulated, etc.

2. Major Function Areas Rating. List those functional areas the particular MAJCOM or SOA considers major, such as operation, maintenance, resources, cost control, procurement, etc., and provide a rating for each. If less than satisfactory, briefly explain. If a Broken Arrow exercise was evaluated during the inspection, report results here, including rating and problem areas.

3. MCI Constraints. Briefly describe any limiting factors that affected the inspector's general ability to adequately assess the unit's combat capability during the MCI.

4. Unit Inspection History. Include the dates, results, and type of the last inspection, and any other remarks that apply.

5. Additional Remarks.

Document Status

Document	Status
Correspondence recommending, directing or coordinating an inspection subject.	Not Privileged (see note 1)
Inspection proposal, itinerary, and augmenter correspondence.	Not Privileged
Field memorandum reports.	Privileged (see note 2)
Final Report.	Privileged (see note 2)
Team progress reports, team member notes and memos, preliminary findings, writeups, and briefing scripts on inspection.	Privileged (see note 3)
Draft inspection reports, validation correspondence, and briefings.	Privileged (see note 3)
Corrective actions and responses to inspection reports.	Privileged (see note 4)

NOTES:

1. See paragraph 1-10g for definition of "privileged."
2. Statements of fact may be provided.
3. Destroy after 90 days according to AFM 12-50.
4. May be released with statements of fact.

TABLE A9-1

INSPECTION REQUIREMENTS FOR MAJOR CHANGES—NUCLEAR WEAPON UNIT

I T E M	A	B	C	D	E
	TYPE OF CHANGE	PRIMARY UNIT FUNCTIONS AFFECTED	INSPECTION TYPE	WHEN INSPECTED	REMARKS
1	New Mark Program number assigned.	Maintenance, loading, supply, EOD.	NSI.	Before receipt of first new Mark Program Numbered nuclear weapon.	LNSI permitted with only one Mark Program Numbered nuclear weapon.
2	New type of delivery system assigned to operational unit supported.	Loading or mating, EOD.	LNSI.	Before loading on mating nuclear weapons.	NSI required if new delivery system causes introduction of new Mod Program Numbered weapon.
3	Resumption of nuclear mission	All unit functions.	NSI.	Within 90 days after receipt of first nuclear weapon or resuming custody of a stockpile.	INSI must be conducted prior to unit resumption of the nuclear mission if the unit did not store, handle, maintain, or load nuclear weapons for 6 months or longer; or in the case of US custodial units supporting non-US delivery organizations, if technical loading monitoring was not performed for 6 months or longer in support of normal peacetime readiness.
4	Relocation of unit on establishment of new unit.	All unit functions.	INSI.	Before introduction of nuclear weapons to unit's facilities or custody.	NSI permitted if facilities have been used by an Air Force unit in the past 6 months for same Mark Program Numbered weapon.

TABLE A9-1—Cont.

INSPECTION REQUIREMENTS FOR MAJOR CHANGES—NUCLEAR WEAPON UNIT

I T E M	A	B	C	D	E
	TYPE OF CHANGE	PRIMARY UNIT FUNCTIONS AFFECTED	INSPECTION TYPE	WHEN INSPECTED	REMARKS
5	Significant modification of facilities or occupancy of new facility.	Affected functional areas.	LNSI.	Before introduction of nuclear weapons into the modified or new facility. (see note)	An extensive evaluation must be made of the design and construction. Security policies and procedures must be assessed to evaluate impact of any changes.

NOTE: An LNSI may be conducted on one or more facilities that are typical of new construction at a base. If no modification to other similar structures or facilities takes place after the LNSI of typical structures, then inspection of other structures or facilities is not required. If new structures or facilities are located in a specific area (that is, quick reaction alert, victor alert, weapon storage area) and the entire area is affected, then the entire area must be inspected after completion of construction.

Glossary of Abbreviations

BIQ	Base Inspection Questionnaire	MEI	Management Effectiveness Inspection
CCI	Chemical Capability Inspection	MIS	Management Information System
CM	Chemical Munitions	NAF	Numbered Air Force
CSMI	Chaplain Services Management Inspection	NOWR	Nuclear Ordnance War Reserve
DNA	Defense Nuclear Agency	NSI	Nuclear Surety Inspection
DNSI	Defense Nuclear Surety Inspection	OCR	Office of Collateral Responsibility
DOC	Designed Operational Capability	OPR	Office of Primary Responsibility
DRU	Direct Reporting Unit	ORI	Operational Readiness Inspection
EOD	Explosives Ordnance Disposal	OTSI	Over-the-shoulder Inspection
FFR	Final Finding Review	PAL	Permissive Action Link
FMI	Functional Management Inspection	PNAF	Prime Nuclear Airlift Force
FRI	Federal Recognition Inspection	PORI	Phased Operational Readiness Inspection
GAO	General Accounting Office	PRP	Personnel Reliability Program
GCC	Graduated Combat Capability	RV	Reentry Vehicle
HSMI	Health Services Management Inspection	SAMI	System Acquisition Management Inspection
ICBM	Intercontinental Ballistic Missile	SCI	Sensitive Compartmented Information
ICCI	Initial Chemical Capability Inspection	SII	Special Interest Items
IFR	Interim Finding Review	SOA	Separate Operating Agency
IG	Inspector General	SOW	Statement of Work
INSI	Initial Nuclear Surety Inspection	TIG	The Inspector General, HQ USAF
IORI	Initial Operational Readiness Inspection	UNITREP	Unit Status and Identity Report
LIMFAC	Limiting Factor	USP&FO	United States Property and Fiscal Offices
LNSI	Limited Nuclear Surety Inspection	UTA	Unit Training Assembly
LORI	Limited Operational Readiness Inspection	WR	War Reserve
MAJCOM	Major Command	WRM	War Reserve Materiel
MCI	Mission Capability Inspection		

6 June 1979

Organization and Mission — Field

AIR FORCE INSPECTION AND SAFETY CENTER (AFISC)

This regulation states the mission, organization, functions, and responsibilities of the AFISC.

1. Mission. AFISC provides the Secretary of the Air Force; the Chief of Staff, USAF; and major command (MAJCOM) and separate operating agency (SOA) commanders an assessment of Air Force fighting capability and resource management effectiveness. It does this by measuring operational readiness, by evaluating the effectiveness and efficiency of management systems, by developing and managing the Air Force Mishap Prevention Program, and by recommending improvements in Air Force accomplishment of its wartime and peacetime missions.

2. Organization. AFISC is an SOA with the administrative and procedural responsibilities of a MAJCOM. The Commander, AFISC, exercises command jurisdiction over assigned personnel, facilities, property, and funds.

3. Responsibilities. AFISC is the single agency within the Air Force that performs certain responsibilities of The Inspector General. Specifically, AFISC:

a. Plans, directs, and evaluates Air Force inspection and safety programs.

b. Conducts inspections and investigations to evaluate the effectiveness of management in all functional areas.

c. Plans and conducts inspections and investigations of the Air Force Medical Service, its units and activities.

d. Analyzes inspection reports to identify deficiencies and trends.

e. Conducts or participates in selected accident investigations.

f. Manages Air Force mishap prevention information, education, and training.

g. Regulates Air Force mishap reaction endeavors, from mishap investigation through completion of corrective actions.

h. Receives and maintains official reports of Air Force mishaps.

i. Conducts studies on how to predict potential mishaps, to identify mishap causes, and to prevent future mishaps.

j. Examines Air Force aerospace systems from concept through phaseout to ensure safety in design, manufacture, maintenance, and operation.

k. Makes sure that human factor and life science considerations are incorporated in aerospace safety programs.

l. Acts as reviewing and approving authority for the Nonnuclear Munitions Safety Group.

m. Regulates Air Force occupational safety endeavors to comply with the Occupational Safety and Health Act and coordinates in health matters covered by the Act.

n. Administers Air Force safety conferences and represents the Air Force at other selected safety conferences.

o. Provides the Air Force representative to the DOD Explosives Safety Board.

p. Reviews, evaluates, and coordinates on Air Force publication changes, including the career development course (CDC) and specialty training standard (STS), that impact the safety career field.

q. Monitors and evaluates the Air Force safety schools.

r. Acts as the functional manager for the 24IXO safety career field.

s. Conducts nuclear surety and radiological safety inspections, nuclear power system surveys, operational reviews, nuclear power and weapon system safety studies, and investigations of Air Force units, including Air Reserve Forces and certain non-US, NATO organizations.

t. Reviews and approves nuclear safety design criteria for Air Force nuclear weapon systems, and monitors the development of nuclear safety design, devices, and techniques.

u. Operates the Air Force Nuclear Weapon System Safety Group (NWSSG). Develops nuclear weapon system safety rules for approval by the NWSSG, the Air Staff, the Joint Chiefs of Staff (JCS), coordination by the Department of Energy (DOE) and the Defense Nuclear Agency (DNA); and final approval by the Secretary of Defense.

v. Directs and monitors the USAF Nuclear Safety

Supersedes AFR 23-15, 8 June 1977. (See signature page for summary of changes.)

No of Printed Pages: 2

OPR: IGD (AFISC/MO) (by delegation) (Capt R. J. Spaeth)

Approved by: Col W. S. Henderson, Jr.

Writer-Editor: M. O. Norby

Distribution: F

Certification Program for vehicles, equipment, computer software, and procedures associated with nuclear weapons.

w. Monitors and evaluates the USAF Personnel Reliability Program.

x. Formulates policies and procedures for administrative investigations and inquiries within the Air Force.

y. Directs all administrative inquiries and complaints referred to The Inspector General. Conducts inquiries and investigations within the Air Staff to resolve complaints by administrative action.

z. Maintains permanent records of rated flying time, including microfilm files.

aa. Conducts the Air Force Inspection School.

4. Special Responsibilities:

a. The Commander, AFISC, also serves on the Air Staff as the Deputy Inspector General for Inspection and Safety (HQ USAF/IGD), and in both capacities, is responsible to The Inspector General. As primary agent for inspection and safety matters, HQ USAF/IGD conducts inspection and safety programs and acts on behalf of the Secretary of the Air Force and the Chief of Staff.

b. In the capacity of HQ USAF/IGD, the

Commander, AFISC, is authorized to use the signature authority, "For The Chief of Staff," when acting in the designated capacity as a member of the Air Staff, HQ USAF.

5. Relationship With Other Commands and Agencies:

a. AFISC receives support in the functions of judge advocate, information, safety, manpower, administration, budget, data automation, personnel, graphic arts, civil engineering, and supply through support agreements or memoranda of understanding.

b. AFISC and the Air Force Audit Agency (AFAA) coordinate their respective inspection and audit programs under a joint regulation. The purpose of the coordination process is to minimize overlap or duplication in inspections and audits, and to enhance the complementary results that frequently occur when inspections and audits are performed in similar functional areas.

6. **Direct Communication.** On matters for which AFISC is responsible, it is authorized direct communication with other Government agencies; DOD and military services; the Air Staff; major and intermediate Air Force commands, bases, and installations; industry; the general public; and foreign governments.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

LEW ALLEN, JR., General, USAF
Chief of Staff

VAN L. CRAWFORD, JR., Colonel, USAF
Director of Administration

SUMMARY OF CHANGES

This regulation has been revised to update the mission statement; reflect the coordination process between AFISC and the AFAA; refine specific responsibilities in para 3; and delete reference to gender.

5 October 1982

Organization and Mission—General
INSPECTOR GENERAL (IG) ACTIVITIES

This regulation establishes the appointment and reporting policies of the IG. It also prescribes the mission and organizational functions of IG activities Air Force-wide. This publication applies to all Air Force activities authorized an IG.

1. IG Appointment and Reporting Responsibility:

a. Inspector General, USAF, is a Lieutenant General appointed by the Chief of Staff. This individual reports to the Chief of Staff and Secretary of the Air Force on the strengths and weaknesses of all Air Force activities and collateral interests, and recommends corrective action.

b. The commander of each major command (MAJCOM) appoints an IG who reports directly to the commander. Authorizations for additional IGs are shown in attachment 1, which must be reviewed and updated periodically. An IG is not appointed without the approval of HQ USAF. IGs must be senior officers, with rank comparable to other key staff officers.

2. Composition of IG Activities. The IG activities include:

a. **HQ USAF.** IG activities in HQ USAF include IG and Deputy IG; Chief, Office of Inspection; Chief, Office of Safety and Nuclear Surety; Chief, Office of Publications Management (*TIG Brief*); Chief, Office of Special Inquiries and Projects; Chief, Office of Security Police; Chief, Office of Antiterrorism; Chief, Office of Review and Oversight; and the Office of Air National Guard (ANG) and Air Force Reserve (USAFR) activities. ANG and USAFR advisors to the IG are authorized according to 10 U.S.C., section 265. They advise the IG on matters that relate to Air Reserve Forces and take part in formulating and administering policies, plans, programs, and regulations that affect the Air Reserve Forces.

b. **The Air Force Inspection and Safety Center (AFISC), Norton AFB CA.** The Commander, AFISC, serves as the Air Staff Deputy IG for Inspection and Safety.

c. **The Air Force Office of Security Police (AFOSP), Kirtland AFB NM.** The Commander,

AFOSP, serves as the Air Staff Assistant IG for Security Police.

d. **The Air Force Office of Special Investigations (AFOSI), Bolling AFB Wash DC.** The Commander, AFOSI, serves as the Air Staff Assistant IG for Special Investigations.

3. IG Mission and Functions:

a. **Mission.** The IG, USAF, is responsible to the Secretary of the Air Force and the Chief of Staff for the effectiveness of the Air Force inspection; safety; security; nuclear surety; law enforcement; investigative; counterintelligence; antiterrorism; complaint; and fraud, waste, and abuse (FWA) programs. The IG is also responsible for making sure that Air Force resources and Air Reserve Forces are effectively and efficiently managed to sustain the Air Force peacekeeping and fighting capability.

b. **Functions.** The IG:

(1) Develops Air Force inspection policies and procedures; makes sure that command inspections adequately test and accurately report combat capability and operational readiness of subordinate units and gained ANG and USAFR units; inspects and evaluates inspection results to identify problems or deficiencies that impede completing an effective and efficient Air Force mission; makes recommendations to the level of command necessary to ensure corrective action on problems and deficiencies.

(2) Develops policy and guidance for FWA programs; develops policies and procedures for categorizing, processing, and analyzing FWA disclosure; and for conducting inquiries and administrative investigations that relate to same.

(3) Develops policies and guidance for inquiries and complaints programs; develops policies and procedures for categorizing, processing and analyzing complaints; and for conducting inquiries and administrative investigations that relate to same.

(4) Develops flight, missile, nuclear, and ground and explosives safety policies and procedures; and evaluates Air Force safety programs and activities in order to conserve resources through mishap prevention. Serves as the focal point for all inquiries or projects that require safety analysis or mishap information.

Supersedes AFR 20-68, 10 March 1981. (See signature page for summary of changes.)

No. of Printed Pages: 3

OPR: IGEA (Capt Jo A. Ball)

Approved by: Maj Bruce Cox

Writer-Editor: M. M. Green

Distribution: F

(5) Investigates matters within US Air Force jurisdiction that involve major crimes against persons or property (including homicide, sex offenses, larceny, black market, and narcotics violations). Investigates counterintelligence offenses (including treason, subversion, disaffection, terrorism, and espionage). Supervises a FWA program (including investigations that concern contracting, pay and allowances, conflict of interest, irregularities connected with appropriated or nonappropriated funds and procurement or disposition of Air Force property). Manages the US Air Force Technical Surveillance Countermeasures Program; conducts investigative surveys designed to identify and neutralize areas susceptible to crime or security penetrations; and reviews, analyzes and issues information to US Air Force commanders identifying trends and patterns of offenses and irregularities. AFOSI is the US Air Force point of contact with investigative, law enforcement, intelligence, counterintelligence and counterterrorism agencies of US and foreign governments regarding matters within its jurisdiction.

(6) Develops policies and procedures for air base ground defense; manages security police personnel, training, systems and equipment; the physical security of all Air Force physical and operational resources; the information, personnel, and industrial security programs; the Wartime Information Security Program; maintains law and order; prisoner rehabilitation and correction programs; vehicles traffic management programs; the crime prevention program; and the military working dog program.

(7) Provides authoritative information in *TIG Brief* (AFRP 11-1) to commanders and their staffs which is of direct concern to the operational effectiveness of the US Air Force. *TIG Brief* articles cover anticipated and actual problem areas; deficiencies; recommendations to improve management; policy

guidance; safety, security, inspection, and operational techniques; and outstanding practices and procedures. Articles are based on IG and coordinated Air Staff policies and directive, and on provisions of public laws.

(8) Develops policies and procedures for the Air Force Antiterrorism Program. Serves as Air Staff focal point for coordination of antiterrorism matters. Validates MAJCOM (SOAs and DRUs) requirements for armored vehicles, body armor, and other specialized equipment designed to defeat terrorist activity. Provides guidance, information and assistance to MAJCOMs', SOAs and DRUs designated antiterrorism points of contact.

4. The IG of a MAJCOM, Separate Operating Agency (SOA), Special Activity or Direct Reporting Unit (DRU):

a. Mission. The IG of a MAJCOM (numbered air force, SOA, special activity, or DRU) reports the combat capability, operational readiness and management effectiveness of individual units and command-wide functions (as observed during inspections) directly to the commander. Acts as a management advisor for all command or comparable level activities.

b. Function. MAJCOM IG functions are similar to the IG, USAF, except as noted in paragraphs 3b(5) through (8) which are centralized under the IG, USAF.

5. IG Organization. IG activities are organized to perform the functions in paragraph 4 according to the requirements of the individual command. However, responsibility for safety policies, procedures, and programs may be assigned as a separate function which will be reported to the commander or other staff agency as a command preference.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

JAMES L. WYATT, JR., Colonel, USAF
Director of Administration

CHARLES A. GABRIEL, General, USAF
Chief of Staff

1 Attachment
Additional Commands Authorized an IG

SUMMARY OF CHANGES

This revision adds IG activities (para 2a) and expands the AFOSP Commander's responsibilities (para 2c); adds the IG's function of developing policy and guidance for fraud, waste and abuse programs; explains processing and analyzing disclosures of FWA, and conducting inquiries and investigations that relate to same (para 3b(2)); adds and clarifies responsibility for the crime prevention program (para 3b(6)), the inspection policies and procedures (para 3b(1)) and the complaints and inquiries programs (para 3b(3)); describes types of information in *TIG Brief* (para 3b(7)); and adds responsibility of developing policies and procedures for the Antiterrorism Program (para 3b(8)).

ADDITIONAL COMMANDS AUTHORIZED AN IG

1. SOAs, Special Activities, and DRUs:

- a. Headquarters USAF Reserve (AFRES).
- b. United States Air Force Academy (USAFA).
- c. Air Force Office of Special Investigations (AFOSI).
- d. Air Force Technical Applications Center (AFTAC).
- e. Air Force Intelligence Service (AFIS).
- f. Aerospace Defense Center (ADC).

2. Headquarters of Numbered Air Forces (NAF), Comparable Organizations, and Below:

- a. Air Force Logistics Command (AFLC)—Air Logistics Center (ALC)*

b. Air Training Command (ATC)—Technical Training Centers* and the Air Force Military Training Center*

c. Pacific Air Forces (PACAF)—5th* and 13th* Air Forces

d. Strategic Air Command (SAC)—8th** and 15th** Air Forces

e. Tactical Air Command (TAC)—9th and 12th Air Forces and Air Defense, Tactical (ADTAC).

* Indicates that inspection teams are not authorized in IG function.

** Position authorized but not assigned staffing spaces.

AIR FORCE INSPECTION AND SAFETY CENTER REGULATION

ORGANIZATION AND MISSION-FIELD

MISSION DIRECTIVE OF AFISC

21 March 1983

D E P A R T M E N T O F T H E A I R F O R C E

DEPARTMENT OF THE AIR FORCE
HQ Air Force Inspection and Safety Center
Norton Air Force Base, California 92409

AFISC REGULATION 23-1

21 March 1983

Organization and Mission-Field

MISSION DIRECTIVE OF AFISC

This regulation describes the organization and functions of the Air Force Inspection and Safety Center (AFISC) and prescribes policies relating to the AFISC organizational structure.

1. Mission. AFISC provides the Secretary of the Air Force; the Chief of Staff, USAF; and major command (MAJCOM) and separate operating agency (SOA) commanders an assessment of Air Force fighting capability and resource management effectiveness. The Center determines operational readiness, evaluates the effectiveness and efficiency of management systems, develops and manages the USAF Mishap Prevention and Nuclear Surety Programs, plans and directs USAF and Air Reserve Forces Medical Inspection Programs, develops administrative investigation/inquiry and complaint policy for The Inspector General (TIG), and makes appropriate recommendations for improving Air Force mission capability.

2. Organization. AFISC is a separate operating agency (SOA), with the administrative and procedural responsibility of a major command. The Commander, AFISC, exercises command jurisdiction over assigned personnel, facilities, property, and funds.

3. Policy:

a. The Office of Management Support (EM) is the office of primary responsibility for this publication. Within EM, the Office of Manpower (MO) is the action office on AFISC organizational and functional matters.

b. This regulation reflects the current approved organizational structure and functional statements down through branch level.

Supersedes AFISCR 23-1, 15 Oct 1981. (See signature page for summary of changes)

No. of Printed Pages: 50

OPR: MO (SSgt W. H. Williamson)

Approved by: Capt Mozell Payton, Jr.

Editor: Linda Voeller

Distribution: F; X; HQ USAF/IG (5); HQ USAF/MPM (2); AFOSI/XPM, Bolling AFB Wash DC 20332 (1); AFOSP/XP, Kirtland AFB NM 87117 (1); AUL/SE, Maxwell AFB AL 36112 (1)

c. Proposed changes to this regulation will be submitted in letter format to HQ AFISC/MO.

d. Requests for approval of organizational configuration changes will include answers to the following questions:

- (1) What organizational change is proposed?
- (2) Why is this change essential?
- (3) How will the proposed change increase mission effectiveness?
- (4) What manpower changes are required?
 - (a) Show functional distribution of proposed authorized manpower by grade, AFSC, rated position identifier (RPI), and number.
 - (b) Complete AF Form 480, Rated AFSC Justification, on all affected rated authorizations. Provide information in the cover letter to substantiate the need for additional rated authorizations.
 - (c) Prepare colonel position descriptions, in accordance with AFR 26-5, on each 0-6 authorization affected by your requested change.
- (5) If approved, what is the desired effective date? (Allow sufficient leadtime to permit staffing and preclude personnel hardships.)
- (6) What is the personnel impact (military and civilian) of the proposed change?
- (7) What will be the effect upon current or proposed contract services?
- (8) What is the one-time dollar cost to make the change (show how computed)?
- (9) What is the continuing budgetary impact? (Show savings as a result of this change.)
- (10) What equipment and/or facility changes are required, and how will they be accomplished?
- (11) How does the proposed change affect our host-tenant support agreements?

e. Changes in the Air Force Inspection and Safety Center organizational structure, designation, or in the functional statements will not be made without prior approval of the Commander, AFISC.

f. Approved changes will be published in subsequent revisions to this regulation.

OFFICIAL

GERALD LARSON
Major General, USAF
Commander

MOZELL PAYTON, Capt, USAF
Chief of Administration

- 6 Atch
1. Air Force Inspection Organization and Mission
 2. Directorate of Inspection Organization and Mission
 3. Directorate of Aerospace Safety Organization and Mission
 4. Directorate of Medical Inspection Organization and Mission
 5. Directorate of Nuclear Surety Organization and Mission
 6. Office of Management Support Organization and Mission
 7. Office of Data Automation Organization and Mission

SUMMARY OF CHANGES:

This revised regulation updates organizational charts and functional statements to reflect organizational and mission changes since 15 October 1981.

COMMAND FUNCTION: Deleted the Senior Enlisted Advisor. Realigned the Office of Special Projects to the Office of Management Support.

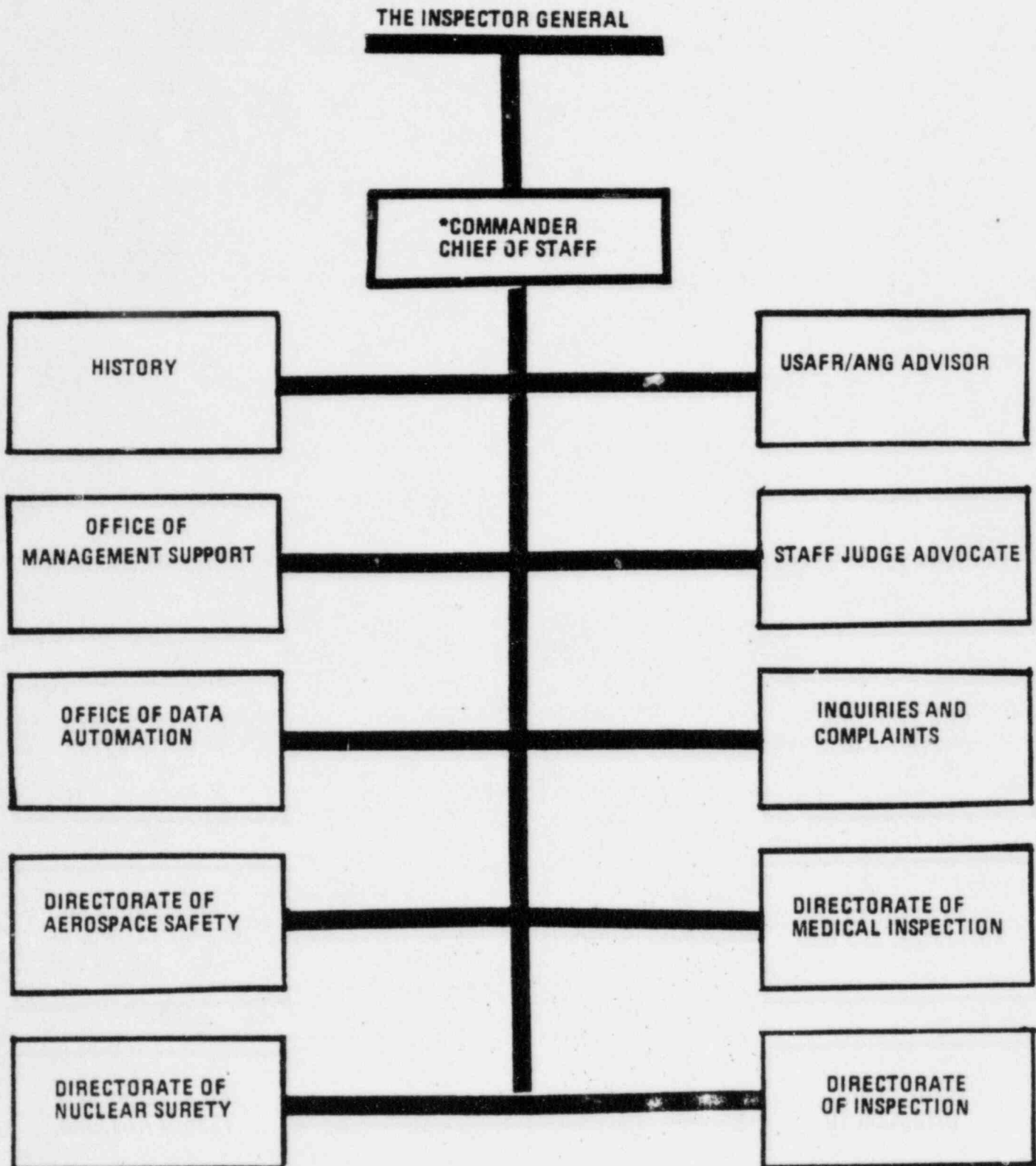
DIRECTORATE OF INSPECTION: Realigned the Intelligence Inspection Branch to the Readiness Inspection Division. Created the Accounting and Finance Branch, MWR Inspection Branch, Computer Resource Inspection Branch and the Comptroller Branch from the Effectiveness Branch.

Created the Logistics Inspection Followup Branch, Fraud, Waste, and Abuse Prevention and Detection Branch from the Followup Branch. Inspection Plans and Special Projects Office was retitled to Plans and Programs Office.

DIRECTORATE OF AEROSPACE SAFETY: Established the AFOSH Standards Branch under the Ground Safety Division, broke out the DRIVER and MAINTENANCE Magazines from the FLYING SAFETY Magazine Branch.

OFFICE OF MANAGEMENT SUPPORT: The Office of Data Automation was realigned as a separate function. The Transportation coordinator duties were realigned under the Office of Administration; the Reprographic Management work center has been deleted, and Office of Special Projects has been realigned under this function.

21 March 1983



Air Force Inspection & Safety Center Organizational Chart

*Incumbent serves in a dual capacity as Commander, AFISC, and Deputy Inspector General for Inspection and Safety (DIGIS) HQ USAF/IGD.

COMMANDER, AIR FORCE INSPECTION AND SAFETY CENTER

The Commander of AFISC (AFISC/CC) also serves as Deputy Inspector General for Inspection and Safety (HQ USAF/IGD). In both capacities, the Commander is responsible to The Inspector General (TIG), USAF. In the capacity of HQ USAF/IGD, the Commander, AFISC, is authorized to use the signature authority, FOR THE CHIEF OF STAFF.

AFISC is the single agency within the Air Force that performs certain responsibilities of The Inspector General. Specifically, AFISC:

- a. Plans, directs, and evaluates Air Force Inspection and Safety programs.
- b. Conducts inspections and investigations to evaluate the effectiveness of management in all functional areas.
- c. Plans and conducts inspections and investigations of the Air Force Medical Service, its units and activities.
- d. Analyzes inspection reports to identify deficiencies and trends.
- e. Conducts or participates in selected mishap investigations.
- f. Manages Air Force mishap prevention information, education, and training.
- g. Regulates and monitors Air Force mishap reaction endeavors, from mishap investigation through completion of corrective actions.
- h. Receives and maintains official reports of Air Force mishaps.
- i. Conducts studies on how to predict potential mishaps, to identify mishap causes, and to prevent future mishaps.
- j. Examines Air Force aerospace systems from concept through phaseout to insure safety in design, manufacture, maintenance, and operation.
- k. Insures that human factor and life science considerations are incorporated in aerospace safety programs.
- l. Acts as reviewing and approving authority for the Nonnuclear Munitions Safety Group.

m. Regulates Air Force occupational safety endeavors to comply with the Occupational Safety and Health Act and coordinates in health matters covered by the Act.

n. Administers Air Force safety conferences and represents the Air Force at other selected safety conferences.

o. Provides the Air Force representative to the DOD Explosives Safety Board.

p. Conducts nuclear surety and radiological safety inspections, nuclear power system surveys, operational reviews, and nuclear power and weapon system safety studies and investigations of Air Force units, including Air Reserve Forces and certain non-US NATO organizations.

q. Reviews and approves nuclear safety design criteria for Air Force nuclear weapon systems; and monitors the development of nuclear safety design, devices, and techniques.

r. Operates the Air Force Nuclear Weapon System Safety Group (NWSSG). Develops nuclear weapons system safety rules for approval by the NWSSG, the Air Staff, and the Joint Chiefs of Staff; coordination by the Department of Energy (DOE) and the Defense Nuclear Agency (DNA); and final approval by the Secretary of Defense.

s. Directs and monitors the USAF Nuclear Safety Certification Program for vehicles, equipment, computer software, and procedures associated with nuclear weapons.

t. Monitors and evaluates the USAF Personnel Reliability Program.

u. Formulates policies and procedures for administrative investigations and inquiries within the Air Force.

v. Directs administrative inquiries and complaints referred to The Inspector General. Conducts inquiries and investigations to resolve complaints by administrative action.

w. Maintains permanent records of rated flying time, including microfilm files.

x. Conducts the Air Force Inspection School.

y. Reviews, evaluates, and coordinates on Air Force publication changes, including the career development course (CDC) and specialty training standard (STS), that impact the safety career field.

z. Monitors and evaluates the Air Force safety schools.

aa. Acts as the functional manager for the 241X0 safety career field.

HISTORIAN

Collects historical data on significant actions, problem areas, and actions taken to resolve problems. Evaluates data, prepares, and edits official AFISC history in accordance with appropriate directives. Maintains historical reference files and performs special research as required. Establishes and develops programs to enhance use of historical data as a reference source and management tool. Serves as manager of the Center's public affairs program. Writes original material for the Community Service and suggestion functions. Attends professional training and scholarly historical convocations. Acts as AFISC representative for the Project Warrior Program.

STAFF JUDGE ADVOCATE

Advises AFISC Commander on legal matters associated with the USAF inspection system, safety programs, and AFISC command matters. Participates in inspections and special investigations where legal matters are involved. Provides guidance and assistance to directorates on matters which have legal implications. Provides legal assistance to all eligible Center personnel.

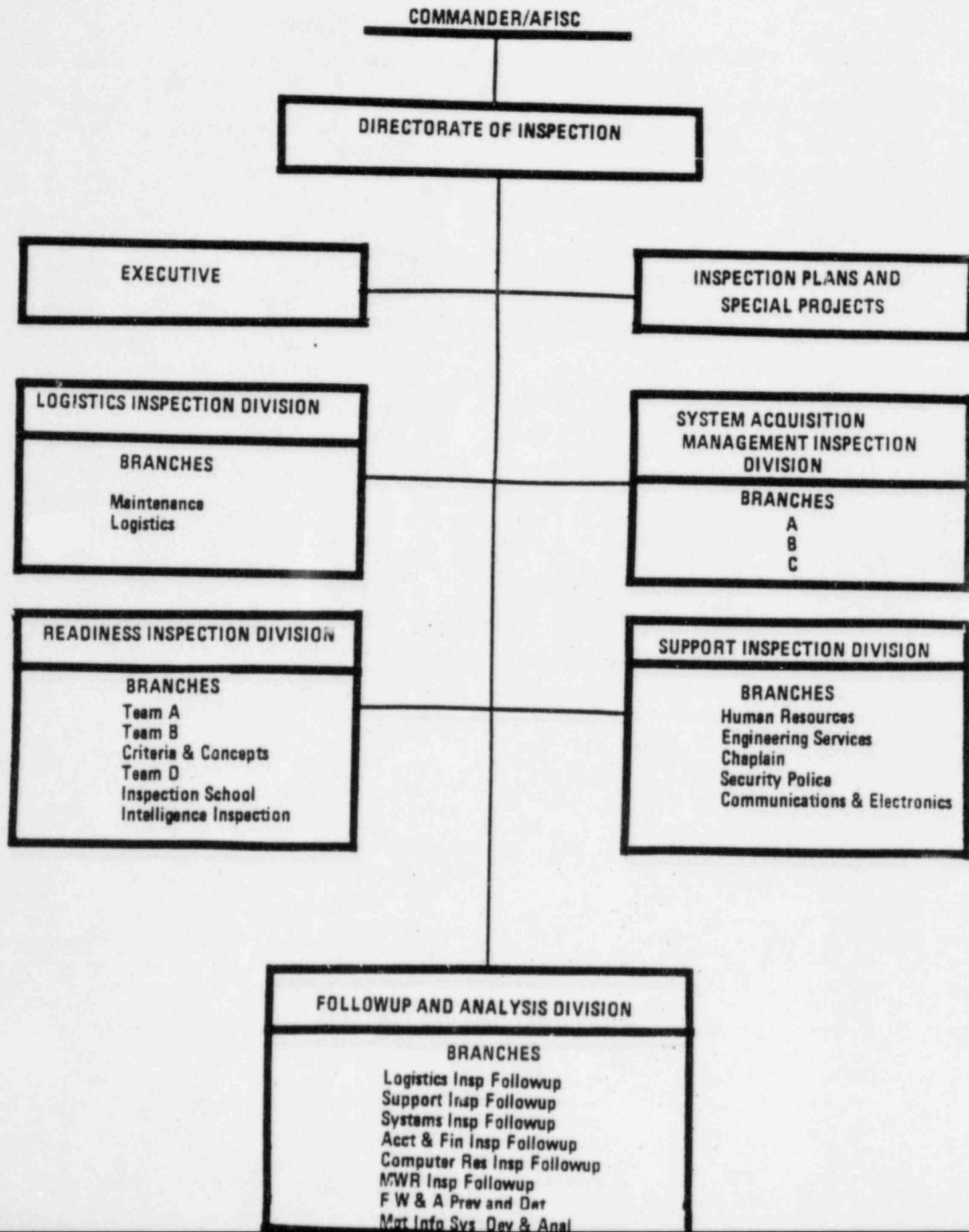
ANG/USAFR ADVISOR

Assists and advises the AFISC Commander/DIGIS on matters involving inspection and safety programs for the United States Air Force Reserve (USAFR) and Air National Guard (ANG). Assists and provides technical advice to inspection team chiefs regarding inspecting, reporting on, evaluating the combat readiness and management of resources of the USAFR, AFRES, and ANG. Coordinates with the OPRs for the 123-series inspection publications and 127-series safety publications to assure that USAFR, AFRES and ANG special situations and the nature of their operations and capabilities are considered. Assists in the proceedings and deliberations of Accident Review Boards (ARB), Inspection Proposal Review Committee, the Interim Finding Reviews (IFR), and Formal Finding Reviews (FFR) involving USAFR and AFRES forces and personnel. Assists and advises the Inspection School staff on inspection procedures relating to the curriculum affecting the USAFR, AFRES and ANG. Coordinates with the Chief of Air Force Reserve (HQ USAF/RE) staff; the Air Staff; Commander, Headquarters Air Force Reserve (AFRES); Commander, Air Reserve Personnel Center (ARPC); Chief, National Guard Bureau (NGB/CC); Director, Air National Guard (NGB/CF) staffs, and gaining major command staffs on inspection activities, safety programs, and directives affecting the USAFR Mobilization Augmentee and AFRES/ANG training and wartime mission.

INQUIRIES AND COMPLAINTS

Develops administrative investigation/inquiry and complaint policy for The Inspector General (TIG), USAF. Develops and publishes procedures which provide TIG with a credible and responsive USAF complaints program. Processes administrative inquiries referred to TIG from various sources to include all levels of the Federal Government, individual service members, and civilian agencies. Directs inquiries and investigations, when appropriate, by field organizations to determine complete facts. Conducts inquiries and investigations into those complaints that appear to have far-reaching impact on USAF mission accomplishment. Reviews reports of inquiry/investigations conducted by subordinate units, for completeness, impartiality, and adequacy of action taken. Administers the USAF Inspector General Complaint Data Collection Program. Compiles and analyzes complaint statistics to identify potential problem areas requiring additional emphasis. Processes all requests for Inspector General records generated as a result of administrative inquiries/investigations and requested under the Freedom of Information or Privacy Acts of 1974.

21 March 1983



DIRECTORATE OF INSPECTION

Responsible for determining the status of operational readiness within the commands, evaluating the effectiveness and efficiency of management systems, defining problems impeding the effective accomplishment of the Air Force mission, and providing factual information on which to base corrective actions.

The directorate conducts five types of inspections: the functional management inspection (FMI) to evaluate well-defined activities and programs, the system acquisition management inspection (SAMI) to review all aspects of weapon system acquisition, the over-the-shoulder inspection (OTSI) to evaluate major command/separate operating agency/direct reporting unit inspection team performance, the followup inspection to determine effectiveness of OPRs to correct identified deficiencies, and management effectiveness inspection (MEI) to evaluate overall management effectiveness of a unit or organization. The directorate also conducts readiness studies for the Chief of Staff, HQ USAF.

EXECUTIVE

Assists the Director of Inspection in the execution of plans and policies. Coordinates activities of divisions relating to accomplishment of directorate mission. Monitors flow of guidance from the Director to the divisions and insures prompt, complete, and mutually consistent action. Manages administrative functions to insure timely processing of all correspondence. Monitors directorate personnel matters. Coordinates subjects of mutual interest with the Air staff.

PLANS AND PROGRAMS OFFICE

Develops directorate budget and tracks divisions' expenditure of TDY funds. Participates in the inspection process by maintaining inspection subject files, attending Inspection Proposal Review Committee meetings as member and recorder, and reviewing draft inspection reports. Acts as directorate focal point for Monthly Activity Report to TIG, General Accounting Office (GAO) matters pertinent to inspections, coordination with the Air Force Audit Agency (AFAA), directorate internal operating procedures, and directorate portion of AFISCR 120-1. Represents the directorate as a member of the AFISC Financial Working Group. Manages the Air Force Special Interest Item program for inspection-related items. Analyzes the inspection program and proposes changes in policy and procedures based on analysis results. Accomplishes special projects assigned by the Director. Plans annual Worldwide Inspection Conference.

FOLLOWUP AND ANALYSIS DIVISION

Evaluates effectiveness of actions taken by OPRs to correct discrepancies listed in TIG inspection reports; plans and schedules followup inspections. Determines management efficiency in the functional areas of comptroller; accounting and finance; data automation; and morale, welfare, and recreation; provides factual information on which to base corrective actions. Manages the Followup Management Information System (FUMIS) and the Inspection Results Analysis System (IRAS). AFISC focal point for the Fraud, Waste, and Abuse (FW&A) Program.

LOGISTICS INSPECTION FOLLOWUP BRANCH

Responsible for inspection followup of HQ USAF-level supply, munitions, transportation, contracting, maintenance and MAJCOM over-the-shoulder (OTSI) inspections. Monitors and reviews proposed, ongoing, and completed inspections in each of the above major disciplines. Tracks MAJCOM and Air Staff responses to inspections, analyzes the responses, and determines their adequacy in resolving the problems identified. Prepares inspection status reports and briefings for senior officers on the results of the corrective action evaluation and recommends a variety of approaches for final resolution of problem issues to The Inspector General. Provides followup guidance and maintains current knowledge of assigned functional area policies and procedures. Performs Air Force-wide functional management and followup inspections as required. Develops accurate findings and provides practical solutions to Air Force management problems. Formulates inspection followup policy and procedures. Establishes inspection followup standards to increase effectiveness and produce increased benefits to the Air Force. Briefs at the highest MAJCOM and Air staff levels.

SUPPORT INSPECTION FOLLOWUP BRANCH

Responsible for inspection followup of HQ USAF-level personnel, education and training, morale, welfare and recreation, security police, engineering services, administration, automated data processing, budget, accounting and finance, and chaplain inspections. Monitors and reviews proposed, ongoing, and completed inspections in each of the above major disciplines. Tracks ALL responses to inspections, analyzes the responses, and determines their adequacy in resolving the problems identified. Prepares inspection status reports and briefings for senior officers on the results of the corrective action evaluation, and recommends a variety of approaches for final resolution of problem issues to The Inspector General. Provides followup guidance and maintains current knowledge of assigned functional area policies and procedures. Performs Air Force-wide functional management and followup inspections as required. Develops accurate findings and

provides practical solutions to Air Force management problems. Formulates inspection followup policy and procedures. Establishes inspection followup standards to increase effectiveness and produce increased benefits to the Air Force. Briefs at the highest MAJCOM and Air Staff levels.

SYSTEM INSPECTION FOLLOWUP BRANCH

Responsible for inspection followup of HQ USAF level System acquisition, communication systems, intelligence and civil engineering inspections. Monitors and reviews proposed, ongoing, and completed inspections in each of the above major disciplines. Tracks MAJCOM and Air Staff responses to inspections, analyzes the responses, and determines their adequacy in resolving the problems identified. Prepares inspection status reports and briefings for senior officers on the results of the corrective action evaluation and recommends a variety of approaches for final resolution of problems/issues to The Inspector General. Provides followup guidance and maintains current knowledge of assigned functional area policies and procedures. Performs Air Force-wide functional management and followup inspections as required. Develops accurate findings and provides practical solutions to Air Force management problems. Establishes inspection followup standards to increase effectiveness and produce increased benefits to the Air Force. Briefs at the highest MAJCOM and Air Staff levels.

MANAGEMENT INFORMATION SYSTEM DEVELOPMENT AND ANALYSIS BRANCH

Responsible for continuing development of the Followup Management Information System (FUMIS) and The Inspection Results Analysis System (IRAS) as tools for inspection analyses and followup activities. Receives, codes, and inputs inspection reports into the automated systems. Identifies adverse trends and common thread characteristics and furnishes information to management for use in selecting and scoping inspections. Using inspection results, provides crossfeed to MAJCOMs and Air Staff to focus attention on common deficiencies. Prepares quarterly readiness briefing for the Air Force Chief of Staff in coordination with IGQ. Prepares monthly and semiannual fraud, waste, and abuse reports. Maintains automated data base for FW&A disclosure data. Maintains automated data base and provides monthly reports on Inspection Directorate travel costs.

COMPTROLLER INSPECTION BRANCH

Responsible for all aspects of Air Force-wide inspection of all comptroller functions at all levels of command. Identifies broad system problems and develops workable solutions. Develops recommendations for the highest management levels of MAJCOMs and Air Staff. Frequently briefs general officer/senior commanders

concerning inspection proposals and results. Provides input, from a financial perspective, to other diverse functional area inspections. Augments other functional, special, and joint inspections. Analyzes comptroller systems to detect areas particularly sensitive to fraud, waste, and abuse. Functions as the highest level inspector, in his/her discipline, in the Air Force. Determines depth and scope of inspections and obtains appropriate functional augmentation. Directs field inspection efforts.

ACCOUNTING AND FINANCE INSPECTION BRANCH

Responsible for all aspects of Air Force-wide inspection of all accounting and finance functions at all levels of command. Identifies broad system problems and develops workable solutions. Develops recommendations for the highest management levels of MAJCOMs and Air Staff. Frequently briefs general officers/senior commanders concerning inspection proposals and results. Provides input, from an accounting and finance perspective, to other diverse functional inspections. Augments other functional, special, and joint inspections. Analyzes accounting and finance systems to detect areas particularly sensitive to fraud, waste, and abuse. Functions as the highest level inspector, in his/her discipline, in the Air Force. Determines depth and scope of inspections and obtains appropriate functional augmentation. Directs field inspection efforts.

COMPUTER RESOURCES INSPECTION BRANCH

Responsible for all aspects of Air Force-wide inspection of all automation functions at all levels of command. Identifies broad system problems and develops workable solutions. Develops recommendations for the highest management levels of MAJCOMs and the Air Staff. Frequently briefs general officers/senior commanders concerning inspection proposals and results. Provides input, from an automation perspective, to other diverse functional area inspections. Augments other functional, special, and joint inspections. Analyzes computer systems to detect areas particularly sensitive to fraud, waste, and abuse. Functions as the highest level inspector, in his/her discipline, in the Air Force. Determines depth and scope of inspections and obtains appropriate functional augmentation. Directs field inspection efforts.

MORALE, WELFARE, AND RECREATION (MWR) BRANCH

Responsible for all aspects of Air Force-wide inspection of all MWR functions at all levels of command. Identifies broad system problems and develops workable solutions. Develops recommendations for the highest management levels of MAJCOMs and Air Staff. Frequently briefs general officers/senior commanders

concerning inspection proposals and results. Provides input, from a MWR perspective, to other diverse functional area inspections. Augments other functional, special, and joint inspections. Analyzes MWR systems to detect areas particularly sensitive to fraud, waste, and abuse. Functions as the highest level inspector, in his/her discipline, in the Air Force. Determines depth and scope of inspections and obtains appropriate functional augmentation. Directs field inspection efforts.

FRAUD, WASTE, AND ABUSE PREVENTION AND DETECTION BRANCH

Serves as AFISC focal point for the Fraud, Waste, and Abuse (FW&A) Program. Responsible for management of all AFISC FW&A prevention and detection actions. Implements broad policies relating to FW&A. Reviews, authors, and publishes TIG Brief articles and other publicity releases related to FW&A. Responsible for AFISC FW&A. Responsible for AFISC FW&A directives, operating instructions, and other internal guidance. Monitors special interest items (SIIs) related to FW&A. Conducts inspections and surveys related to FW&A. Reviews inspection reports and extracts relevant items for publication in FW&A crossfeed letters. Represents AFISC/CC on working group of the Air Force Audit, Inspection, and Investigation Council (AFAIIC). Serves as functional expert for special investigations. Acts as AFISC advisor and inspector for all matters related to counter intelligence functions, antiterrorism, protective operations, criminal investigations, fraud investigations, and other AFOSI activities. Serves as team chief for inspections and followup in the counterintelligence, criminal, and FW&A related areas. Briefs senior officers on FW&A programs.

READINESS INSPECTION DIVISION

Evaluates MAJCOM/SOA inspection systems. Verifies MAJCOM assessment of unit mission readiness and management of resources. Identifies and conducts inspections of readiness issues as directed by The Inspector General (TIG), USAF. Reviews and recommends improvements to MAJCOM operational readiness inspection (ORI) criteria; conducts over-the-shoulder inspection (OTSI) of MAJCOM/SOA/NAF inspection teams to evaluate criteria application, scenario realism, mission-oriented inspection standards, and team management. Conducts the MAJCOM monitor program. Conducts functional management inspection (FMI) as required. Monitors SOA/DRU Self-Inspection Program. Schedules, plans, coordinates, and budgets division field activities. Is the Center focal point for readiness-related activities. Conducts the USAF Inspection School. Provides administrative support to subordinate branches.

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MORALE, WELFARE, AND RECREATION (MWR) BRANCH

Responsible for all aspects of Air Force-wide inspection of all MWR functions at all levels of command. Identifies broad system problems and develops workable solutions. Develops recommendations for the highest management levels of MAJCOMs and Air Staff. Frequently briefs general officers/senior commanders

concerning inspection proposals and results. Provides input, from a MWR perspective, to other diverse functional area inspections. Augments other functional, special, and joint inspections. Analyzes MWR systems to detect areas particularly sensitive to fraud, waste, and abuse. Functions as the highest level inspector, in his/her discipline, in the Air Force. Determines depth and scope of inspections and obtains appropriate functional augmentation. Directs field inspection efforts.

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READINESS INSPECTION DIVISION

Evaluates MAJCOM/SOA inspection systems. Verifies MAJCOM assessment of unit mission readiness and management of resources. Identifies and conducts inspections of readiness issues as directed by The Inspector General (TIG), USAF. Reviews and recommends improvements to MAJCOM operational readiness inspection (ORI) criteria; conducts over-the-shoulder inspection (OTSI) of MAJCOM/SOA/NAF inspection teams to evaluate criteria application, scenario realism, mission-oriented inspection standards, and team management. Conducts the MAJCOM monitor program. Conducts functional management inspection (FMI) as required. Monitors SOA/DRU Self-Inspection Program. Schedules, plans, coordinates, and budgets division field activities. Is the Center focal point for readiness-related activities. Conducts the USAF Inspection School. Provides administrative support to subordinate branches.

TEAM A/B

Evaluates, assists, and influences MAJCOM/SOA/NAF inspection systems. Recommends improvement for the planning and operation, conduct, report, and followup of ORIs, mission capability inspections, and readiness-oriented management effectiveness inspections which realistically test the unit's ability to carry out its wartime tasking. Conducts MAJCOM monitor program for each command to provide a single point of contact within the center. Tracks significant problem areas and deficiencies through the MAJCOM monitor program to insure proper corrective action is taken. Observes major joint exercises to determine effectiveness of training in relation to wartime tasking. Examines the integration of active and Reserve forces and the conduct of tactical operations in concert with land and sea forces. Performs OTSIs of command inspection systems to determine the adequacy of inspection criteria, scenarios, realistic tasking, preinspection planning, publishing of inspection report, and followup tasking action. Determines the effectiveness and accuracy of combat forces' capabilities, readiness, and readiness reporting. Evaluates employment, mobility, and deployment in connection with wartime tasking as evaluated by ORIs. Prepares inspection reports and presents inspection briefings on significant findings to the Air Staff and MAJCOM commanders and staffs. Analyzes inspection results to determine possible trends and savings. Elevates significant Air Force readiness and management problems to appropriate levels for correction.

CRITERIA AND CONCEPTS BRANCH

Coordinates reviews of MAJCOM inspection criteria. Analyzes readiness inspection results to determine trends and elevates significant Air Force inspection results and criteria and concepts problems to the senior Air Staff for information and correction. Interfaces with the Air Staff on combat readiness reporting issues. Office of primary responsibility for AFR 123-1. Anchors staff actions pertaining to inspection matters with concentration on readiness issues and unit readiness measurement and reporting systems.

TEAM D

Evaluates and monitors readiness issues Air Force-wide. Responds to CSAF and Air Staff-directed inspections or evaluations of Air Force functions. Conducts functional management inspections, special inspections, and provides recommendations for improving readiness. Remains current on actions by readiness and personnel agencies to manage, train, and allocate rated personnel. Provides operational expertise and support to MAJCOM OTSI efforts in evaluating and influencing MAJCOM/SOA inspection systems. Prepares and presents briefings on inspection findings to unit and MAJCOM commanders and the Air Staff.

INSPECTION SCHOOL

The Inspection School is considered by TIG as a sound, basic step to prepare the new inspector for his or her duties. The school provides an intense 4-day orientation toward, and practice of, current USAF inspection philosophy, emphasis, and techniques as well as acceptable personal codes of conduct for the new inspector. Instruction includes lectures and seminars in inspection philosophy; preplanning; organization, development, documentation, and validation of findings; management of inspection teams; photographic documentation; and interview techniques. All inspectors of major commands, separate operating agencies, numbered air forces, and AFISC attend the school. Inspection divisions will insure that newly assigned personnel complete the school as soon as possible, preferably within 90 days of assignment and with at least one but not more than three inspection trips completed. Classes are offered on an average of twice a month and are conducted at AFISC as well as overseas MAJCOM headquarters and regionally on a cost effective basis. School is also open to QA/QC personnel as well as US Army, US Navy, and civilian personnel on a space available basis.

INTELLIGENCE INSPECTION BRANCH

Inspects and reports on worldwide Air Force intelligence and counterintelligence activities to insure compliance with Executive Order 12333, United States Intelligence Activities. Is the OPR for AFR 123-3. Performs special studies and inspections as tasked by TIG. Conducts functional management inspections as appropriate. Performs over-the-shoulder inspections of MAJCOM/SOA inspection programs where primary missions include intelligence or counterintelligence (e.g., ESC and AFOSI). To insure proper protection and control of sensitive compartmented information, the branch manages the Norton Security Vault Area.

SYSTEM ACQUISITION MANAGEMENT INSPECTION DIVISION

Evaluates selected aerospace system and subsystem programs or functions to provide improved visibility on the progress and efficiency of program management during the acquisition process.

A/B/C BRANCH

Plans and conducts system acquisition management inspections (SAMI) to assess the effectiveness of planning, programming, development, contracting, test, deployment, operations, and support management of selected aerospace systems and/or subsystems to include aircraft, missile, space, and communications-electronics; and functional management inspections (FMIs) to assess the adequacy of specific functional aspects of the acquisition process across a spectrum of individual systems. The

evaluations involve the Air Staff, AFSC, AFLC, ATC, using commands, contract management agencies, other participating Air Force agencies, and aerospace industry contractors in order to provide Air Force management with overall visibility on developmental, technical, and financial progress and resource utilization efficiency of selected programs or functions. Assesses adequacy of management and technical interfaces among the agencies involved in the selected programs. Determines the effectiveness of the system/subsystems in meeting operational requirements. Prepares inspection reports, presents briefings on inspection results, and evaluates corrective actions. Researches documentation on new and ongoing system programs and submits recommended SAMIs to the Air Force System Acquisition Management Inspection Selection Committee. Maintains awareness of current DOD and USAF policies, procedures, and directives in these functional areas, and determines the adequacy of their implementation and their impact on system/subsystems management during all phases of the acquisition cycle.

LOGISTICS INSPECTION DIVISION

Evaluates effectiveness and efficiency of management in the functional areas of maintenance, munitions, contracting, supply, and transportation, and provides factual information on which to base corrective actions.

MAINTENANCE BRANCH

Determines inspection requirements and conducts Air Force-wide inspections to evaluate the effectiveness, economy, and mission impact of Air Force planning, programming, and management of the USAF maintenance management system; this includes review of Air Force management of contract specialized repair activities and the development, test, and operation of armament systems and non-nuclear munitions. Researches USAF policies, procedures, and practices in the functional areas of maintenance and nonnuclear munitions. Develops inspection proposals and prepares formal reports which identify deficiencies and recommend corrective action. Briefs inspection findings to selected inspected activities, MAJCOMs, and Air Staff. Identifies potential cost avoidance areas during the planning, conducting, and reporting of inspections with particular emphasis on documentation of possible dollar savings during data gathering. Solicits augmentation and encourages joint AFISC/MAJCOM inspections when such augmentation would provide necessary expertise, increase MAJCOM cooperation, and enhance acceptance of findings/recommendations. As priorities permit, supports MAJCOM IG requests for augmentation to assist in MAJCOM inspections.

LOGISTICS BRANCH

Determines inspection requirements and conducts Air Force-wide inspections to evaluate the effectiveness, economy, and mission impact of Air Force planning, programming, and management of supply systems; contracting activities related to the buying process to include planning, funding, source selection, pricing, negotiation, contract award and administration, and terminations; and vehicle management, operations, maintenance, reports and analysis, and military airlift systems. Researches USAF policies, procedures, and practices in the functional areas of supply, contracting, and transportation. Develops inspection proposals and prepares formal reports which identify deficiencies and recommend corrective action. Briefs inspection findings to selected inspected activities, MAJCOMs, and Air Staff. Identifies potential cost avoidance areas during the planning, conducting, and reporting of inspections with particular emphasis on documentation of possible dollar savings during data gathering. Solicits augmentation and encourages joint AFISC/MAJCOM inspections when such augmentation would provide necessary expertise, increase MAJCOM cooperation, and enhance acceptance of findings/recommendations. As priorities permit, supports MAJCOM IG requests for augmentation to assist in MAJCOM inspections.

SUPPORT INSPECTION DIVISION

Evaluates the effectiveness and efficiency of management in the functional areas of military and civilian personnel, education and training, administration, public affairs, civil engineering and services, chaplain, security police, and communications-electronics, and provides factual information on which to base corrective actions.

HUMAN RESOURCES BRANCH

Plans and conducts Air Force-wide inspections to evaluate the effectiveness and economy of planning, organizing, motivating, and controlling in the functional areas of military and civilian personnel, administration, public affairs, and education and training. Maintains liaison with the Air Staff and other key activities that inspect, affect, or manage these areas for the purpose of gathering data; identifying subjects suitable for inspection; and correcting problems that may not warrant a formal inspection. Provides technical assistance to other elements of AFISC, including the crossfeed of problems that warrant attention by other functional areas. Reviews inspection requirements and prepares inspection proposals within areas of responsibility.

ENGINEERING SERVICES BRANCH

Plans and conducts Air Force-wide inspections to evaluate the effectiveness and economy of planning, programming, and management in the functional areas of civil engineering and services. Researches USAF policies, procedures, and practices in these areas. Prepares inspection reports, presents briefings on inspection results, and evaluates corrective action. Reviews inspection requirements and prepares inspection proposals within areas of responsibility.

CHAPLAIN BRANCH

Plans and conducts Air Force-wide inspections of the Chaplain Service. Evaluates the adequacy and effectiveness of chapel programs in providing opportunities for the religious expression and moral growth of Air Force personnel and their families. Determines effectiveness of Air Force and major command guidelines, policies, special emphasis, and suggested resources and techniques. Measures the effectiveness and efficiency of management of personnel, funds, materials, supplies, facilities, transportation, and support services. Evaluates the interface of the chaplains in affirmative action and other people programs. Assesses chaplain participation in disaster preparedness and contingency and total force readiness. Provides technical assistance in matters relating to chaplain status, functions, and programs to other elements of AFISC.

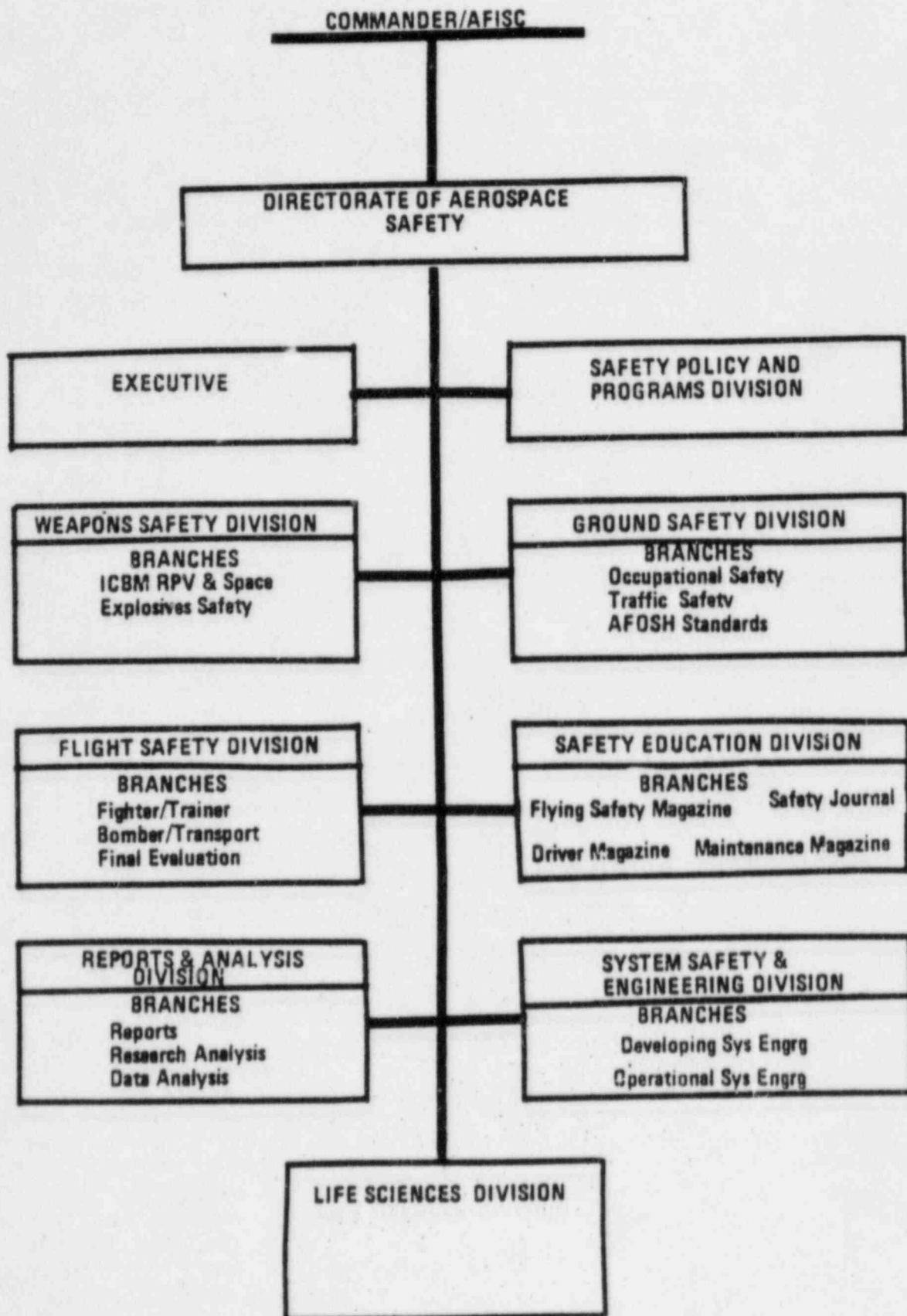
SECURITY POLICE BRANCH

Plans and conducts Air Force-wide inspections to determine the condition of security police resources and the effectiveness with which they are managed. Evaluates the effectiveness of security police programs in providing a safe and secure environment for the conduct of the Air Force mission. Examines the effectiveness of security police leadership, management, and supervision. Identifies factors affecting the quality, discipline, morale, welfare, and effectiveness of security police personnel in meeting their mission objectives. Assists in the quality improvement and modernization of security police personnel, equipment, techniques, and procedures. Coordinates with and briefs inspection findings and recommended corrective actions to MAJCOMs and the Air Staff. Determines the requirement for and recommends future inspection programs within area of responsibility.

COMMUNICATIONS AND ELECTRONICS BRANCH

Plans and conducts Air Force-wide inspections to evaluate the effectiveness and economy of planning, programming, operating, and managing of communications-electronics systems and activities. Evaluates trends and source data and develops inspection

proposals within areas of responsibility. Prepares formal reports which identify deficiencies and recommends corrective actions. Briefs inspection findings to selected activities, MAJCOMs, and the Air Staff. Supports MAJCOM inspections of communications-electronics activities. Support other AFISC divisions when communications-electronics expertise is needed.



DIRECTORATE OF AEROSPACE SAFETY

Maintains staff surveillance of all USAF and Air Reserve Force (ARF) mishap prevention programs in all safety disciplines except nuclear. Conducts safety studies and analyses to evaluate the effectiveness of mishap prevention programs in terms of their impact on Air Force combat capability. Develops standards, policies, programs, procedures, and before-the-fact trending techniques to assist in the identification and correction of safety-related problems in all Air Force functional areas. Establishes and conducts periodic management reviews that will identify the status of corrective actions initiated/recommended by the Director of Aerospace Safety. Conducts/participates in selected mishap investigations of special interest to the Chief of Staff, HQ USAF. Establishes professional qualifications and development programs for HQ USAF safety personnel. Serves as the focal point for the Commander, AFISC, for all matters pertaining to the USAF implementation of the Occupational Safety and Health Act (OSHA). Plans, organizes, and administers USAF safety conferences and periodic Air Force/industry conferences; and represents the USAF at Joint Services Safety Conferences, NATO Flight Safety Standardization Meetings, DOD Explosives Safety Board Meetings; and other boards, councils, committees, and working groups as required.

EXECUTIVE

Exercises overall staff administrative supervision over divisions. Establishes administrative policies, procedures, and organization to ensure support and efficient accomplishment of the directorate mission. Responsible for the accuracy and currency of directorate organizational and functional charts, and personnel actions. Plans and executes awards and retirement ceremonies.

SAFETY POLICY AND PROGRAMS DIVISION

Develops Air Force policy and programs (except nuclear safety) for mishap investigation and reporting, safety manning and training, safety program management, and safety awards. Advises the Director and his staff on proposed policies and programs developed by other safety divisions. Develops and helps manage internal directorate programs. Publishes the procedures for investigating, reporting on, and accounting for Air Force mishaps. Provides technical assistance to aircraft mishap boards. Acts as directorate focal point for the interface of safety programs and inspection activities. Acts as Air Force focal point for the international exchange of mishap data. Represents the directorate with safety agencies external to the Air Force, and develops interservices, interagency, and international agreements related to Air Force safety matters. Serves as USAF functional manager for the enlisted safety career field and civilian career program.

LIFE SCIENCES DIVISION

Manages the aeromedical, physiological, life support, human factors, and escape systems aspects of the Air Force Safety Program. Analyzes mishap data to determine methods to prevent mishaps caused by human factors and to minimize injuries to personnel involved in mishaps. Provides life sciences consultation and support to the planning, design, development, and operation of Air Force life support and egress systems, weapons systems, work environments, miscellaneous equipment, procedures, and training.

SYSTEM SAFETY AND ENGINEERING DIVISION

Administers the Air Force system safety program and is OPR for AFR 800-16. Provides direct assistance to using and supporting MAJCOMs in implementing the system safety program. Develops system safety techniques and procedures for adoption by Air Force managers in weapon system acquisition, maintenance, and operation. Responds to Air Staff requests for technical engineering assistance. Conducts weapon systems engineering evaluations to identify and correct critical hazard potentials. Provides engineering support on safety matters. Makes inputs relative to the system safety aspects of program management directive (PMD) and statement of need (SON) documents. Incorporates lessons learned and proven system safety and techniques into directives, standards, specifications, and design handbooks.

DEVELOPING SYSTEMS ENGINEERING BRANCH

Establishes system safety policy, identifies and promotes new risk management procedures, and adopts new technology. Participates as advisors in system safety groups. Monitors system safety aspects of aerospace systems from conceptual phase through development, primarily with regard to design. Serves as USAF focal point for system safety matters. Provides safety comments or inputs on PMD and SON documents. Maintains staff surveillance of MAJCOM system safety programs. Reviews system safety course curricula. Provides system safety support in the form of data, analysis, and requested guidance to individual aerospace programs. Acts on requests for waiver of safety design requirements by Air Staff agencies.

OPERATIONAL SYSTEMS ENGINEERING BRANCH

Provides technical engineering assistance to members of the Directorate of Aerospace Safety and Air Staff. Conducts weapon systems engineering evaluations to identify and correct critical hazard potentials. Identifies design deficiencies and significant hazards in operational equipment and provides this information to those involved in new aerospace systems design or

existing systems modification. Participates in selected accident investigations. Publishes Directorate of Aerospace Safety "Lessons Learned Newsletter." Evaluates the developments of other military services, civil agencies, and industry for application to the Air Force safety program. Provides policy guidance for and participates in system safety engineering analyses performed in accordance with TO 00-25-172.

SAFETY EDUCATION DIVISION

Provides USAF safety education and training guidance to the directorate. Designs, plans, develops, and secures resources for safety education and training programs in coordination with functional division requirements. Determines USAF safety education requirements; develops and manages university-level formal short course safety education for USAF, Air Force Reserve, Air National Guard, and Security Assistance Training Program Officers. Monitors safety-related courses conducted by ATC on matters concerning training standards, course objectives, curricula content, and student quotas. Initiates, develops, and coordinates audiovisual programs relating to USAF safety education and training. Supervises the planning, development, and production of Flying Safety, Driver, and Maintenance magazines, and the USAF Safety Journal.

FLYING SAFETY MAGAZINE BRANCH

Plans, develops, and produces Flying Safety and Maintenance magazines which seek to prevent mishaps and conserve Air Force resources by providing Air Force units flight safety ideas, techniques, and knowledge developed by the Directorate of Aerospace Safety for all types of aircraft, missions, and environments. Provides support in flight safety matters to USAF safety education programs.

MAINTENANCE MAGAZINE BRANCH

Plans, develops, and produces Maintenance magazine which seeks to prevent mishaps and conserve Air Force weapons system resources by providing flight line and shop technicians and maintenance management personnel with safety knowledge and procedures developed from experience, Air Force mishap and material deficiency reports, industry, and other armed services.

DRIVER MAGAZINE BRANCH

Plans, develops, and produces Driver magazine which seeks to develop informed and mature attitudes toward operating and maintaining privately owned motor vehicles, both 2 and 4 wheel, with particular emphasis on the younger Air Force member. The goal is to prevent death and lost-time accidents, and counter adverse, erroneous, and high-risk information found in many commercial car and cycle publications.

SAFETY JOURNAL BRANCH

Plans, develops, and produces the USAF Safety Journal, a digest of safety materials designed to support safety personnel in developing and administering safety programs. The articles and data presented each month enhance professional development for safety personnel and provide technical, motivational, educational, and promotional materials which are used in local safety efforts.

REPORTS AND ANALYSIS DIVISION

Responsible for the administration, classification, and custody of all USAF aircraft, missile, explosives, and ground mishap reports. Provides a single point safety analysis capability for the Directorate of Aerospace Safety for the identification of problems in all safety disciplines by performing studies and analyses, to include before-the-fact trending. Supports and responds to requests from commands and other DOD agencies concerning mishap information. Processes all requests to the Directorate of Aerospace Safety for safety-related information submitted in compliance with AFR 12-30, Disclosure of Air Force Records to the Public.

REPORTS BRANCH

Administers the USAF nonnuclear mishap reporting system. Establishes file numbers and suspenses, monitors distribution, and audits reports for technical accuracy. Maintains custody of all nonnuclear aircraft, ground, missile, and explosives mishap reports, including microfilm files. Interprets reporting directives. Researches mishap reports and records for special studies. Identifies mishaps in matters of litigation and wreckage identification. Provides opinions on various applications of privileged status as pertains to the release of mishap information to agencies and individuals in and outside the Air Force. Responds to requests from MAJCOMs and other Air Force and DOD agencies for computer-generated mishap data. Processes and responds to Presidential, congressional, attorney/law firm, news media, dependent/survivor, and general public requests for mishap information submitted in compliance with AFR 12-30, and the Freedom of Information Act, Public Law 90-23, 5 USC 552.

RESEARCH ANALYSIS BRANCH

Responsible for the research and development of new mishap analysis programs. Develops and maintains graphics and statistical software for the Data Analysis Branch. Conducts studies and analyses to determine the adequacy of current data collection, storage, retrieval, processing, and analysis methodologies. Performs sophisticated statistical analyses of nonmishap

data to evaluate the relationships between these data and their individual and collective influence on mishap rates. Evaluates the analysis methodologies of other government agencies, industry, and research organizations for their applicability for Air Force use. Performs statistical and qualitative analyses of mishap data to determine the impact of changes in policy, tactics, procedures, and weapon system modification on mishap potential. Performs cost-benefit analyses to prioritize and document the need for changes in policy, hardware, software, and/or organization. Develops, validates, and modifies trending programs as required. Develops, validates, and maintains forecasting/prediction methodologies. Maintains an awareness of state-of-the-art advances in data processing technology and statistical/information management methodologies. Evaluates the effect of recommended changes in data collection, reporting, and processing on data base integrity. Assists other directorates/agencies as required.

DATA ANALYSIS BRANCH

Provides a single point source for mishap data for identification of problems in all safety disciplines through a process of mishap data collection, analysis, and study. Provides recommendations for corrective action and maintains an accurate before-the-fact method of trending on which effective action can be implemented. Provides relevant mishap history and deficiency/failure data quickly and in detail to mishap investigators. Conducts studies and analyses as required by the director. Is responsive to requests for special studies, analyses, and historical data received from DOD, Air Staff, MAJCOMs, and all divisions within the Directorate of Aerospace Safety. Assists Center staff management in problem solving by proper application and use of data systems and computer analysis techniques. Analyzes all mishap reports, encodes data, and enters coded and narrative data into automated files. Designs the format for recurring reports and special outputs for use by safety and AFISC staff personnel. Develops and maintains automated data files for safety research and analysis encompassing all mishap records relating to aircraft, ground, missile, explosives, explosives waivers, hazardous air traffic reports, life sciences data (detailed psycho/physiological data for individuals involved in aircraft mishaps), and USAF flying hours used to determine mishap rates. Information retrieval service for all output products from these files includes assisting customers in selecting proper data elements and formatting the output to best satisfy the customer's needs. Provides interface with the Office of Data Automation in the development of improved data processing methodologies and the evaluation of equipment requirements for input, audit, and retrieval. Manages and controls the use of the key-to-disc entry system with remote terminal stations dispersed within the Center.

WEAPONS SAFETY DIVISION

Develops, implements, and evaluates USAF missile, remotely piloted vehicle (RPV), space, and explosives safety policies and programs. Acts as reviewing authority on weapon mishap reports submitted in accordance with AFR 127-4. Conducts missile and explosives mishap investigations or provides representation to investigations of special interest or importance to the Air Force. Communicates recommendations for correction of deficiencies to action agencies. Provides Air Force membership on the Department of Defense Explosives Safety Board and acts as an advisor to the Chairman of the Nuclear Weapon System Safety Group when ground launched or strategic air launched missiles are involved. Provides directorate representation to the Maintenance Management Reviews and other meetings and councils as required. Responsible for AFR 127-16, and AFR 127-100.

ICBM, RPV, AND SPACE BRANCH

Provides overall direction and guidance to the Air Force mishap prevention program for ICBMs, strategic air launched missiles, ground launched missiles, RPVs, missile ranges, and space systems. Conducts evaluations and provides safety recommendations for all operational ground launched missile systems, strategic air launched missiles, and RPVs as they pertain to facilities, maintenance procedures, and modifications. Maintains liaison with Air Force contractors, missile and RPV system manufacturers, and system managers. Maintains liaison with all Air Force-owned and joint-use missile ranges. Participates in selected mishap investigations. Analyzes mishap reports to ensure adequacy of investigation and corrective action. Communicates recommendations for correcting safety deficiencies to action agencies and monitors status of corrective actions. Interacts with responsible Air Staff officers, major commands, air logistics centers, and other Air Force agencies as appropriate. Monitors missile/space/RPV mishap trends. Provides directorate representation to the Nuclear Weapon System Safety Group and the Nuclear Power Safety Group. Acts as advisor to the Director of Aerospace Safety through the Chief, Weapons Safety Division, on safety criteria pertaining to the USAF ICBMs, strategic air launched missiles, ground launched missiles, RPVs, missile ranges, and AF space systems.

EXPLOSIVES SAFETY BRANCH

Provides overall direction and guidance for the Air Force explosives safety program for nonnuclear munitions including non-nuclear missiles, chemical munitions, and biological defense research materials. Assigns Air Force hazard classifications such as quantity-distance class, storage compatibility group, Department of Transportation (DOT) class, and DOT markings.

Reviews and recommends action on requests for Secretary of the Air Force exemptions, exercises approval authority for deviations from mandatory explosives safety requirements and evaluates waivers to quantity-distance criteria. Provides guidance and technical assistance on facilities and site plans affecting safety in manufacturing, storing, shipping, and handling of explosives. Participates in selected mishap investigations. Analyzes mishap reports to ensure adequacy of investigations and corrective actions. Develops mishap trend data, prepares educational materials, and disseminates pertinent information. Communicates recommendations for correcting explosives safety deficiencies to action agencies and monitors status of corrective actions. Interacts with responsible Air Staff offices, major commands, air logistics centers, and other Air Force agencies as appropriate. Provides Air Force membership and support to Department of Defense Explosives Safety Board; participates in and provides Air Force representative to the Joint Conventional Ammunition Program; provides safety advisor, policy guidance, and support to the Nonnuclear Munitions Safety Board; and provides Air Force representative to non-nuclear missile systems safety groups.

GROUND SAFETY DIVISION

Functions as the Air Force office of primary responsibility for all matters pertaining to ground safety. Plans, develops and implements USAF ground safety policies, standards, and procedures. Performs liaison with Air Staff offices, the Department of Defense, Department of Labor, Department of Transportation, and other governmental and nongovernmental agencies as required. Conducts staff assistance visits to evaluate ground safety programs.

OCCUPATIONAL SAFETY BRANCH

Provides direction and guidance for the Air Force Industrial and Occupational Safety Program. Establishes and evaluates occupational safety education and training requirements. Provides liaison with Air Staff offices, major commands, other governmental agencies, and private sector industrial, educational, and safety organizations as appropriate. Participates in mishap investigations of special interest to the Air Force. Reviews industrial mishap reports to ensure adequacy of investigation and corrective action. Performs studies and analyses of industrial mishap data, and disseminates conclusions and recommendations to action agencies.

AFOSH STANDARDS BRANCH

Develops Air Force Occupational Safety and Health (AFOSH) standards for worldwide application. Provides technical

direction to MAJCOM personnel who assist in developing AFOSH standards. Maintains liaison with the Department of Labor, Department of Health and Human Services, American National Standards Institute, National Fire Protection Association and other national standard setting organizations. Interface with the USAF Medical Services Center (AFMSC), Engineering and Services Center (AFESC) and affected air staff offices on all matters relevant to the promulgation of AFOSH standards. Provide technical advice and interpretation of AFOSH criteria to air staff offices and MAJCOMs. Conduct research of USAF mishaps to provide factual and quantitative data for use in developing AFOSH standard criteria. Publish research reports and studies. Develops audiovisual products in support of the standards program.

TRAFFIC SAFETY BRANCH

Plans and develops USAF ground safety policies, procedures, and standards for traffic, sports and recreation, and public safety disciplines. Functions as command representative on audiovisual products produced in support of the ground safety discipline. Acts as USAF inventory manager for multimedia safety education equipment. Allocates National Safety Council (NSC) funds for USAF and monitors the requisition and distribution of NSC materials. Maintains liaison with other governmental, educational, and industrial organizations. Represents Air Force at regional and national safety organizations such as the Federal Safety Council, National Congress, National Committee on Films for Safety, NSC Traffic Education and Training Committee, the Highway Users and Vehicles Committee of the Transportation Research Board, and National Occupant Restraint Committee. Performs studies and analyses of mishap data and reviews selected mishap reports for trends and problem areas. Disseminates conclusions and recommendations to action agencies. Participates in mishap investigations of special interest to the Air Force. Reviews and determines applicability to the Air Force of safety standards and regulations developed by other federal agencies. Provides ground mishap prevention guidance to major commands and separate operating agencies.

FLIGHT SAFETY DIVISION

Guides and directs the USAF's flight safety programs. Evaluates compliance with established safety directives. Reviews for the Directorate of Aerospace Safety reports required by AFR 127-4, in the area of flight safety; also administers AFR 127-3. Conducts selected aircraft mishap investigations and provides representation to mishap investigations as required. Analyzes mishap reports related to flight safety to ensure adequacy of investigation and corrective actions. Prepares HQ USAF/IGD letters of final evaluation on all Class A and selected Class B flight mishaps. Maintains computer listing of open recommendations and evaluates MAJCOM semiannual status reports on each. Assists in

establishing flight safety programs for new aircraft through participation in acquisition process. Makes recommendations to action agencies to correct flight safety deficiencies. Evaluates developments by other aviation agencies for application to the Air Force safety program.

FIGHTER/TRAINER BRANCH

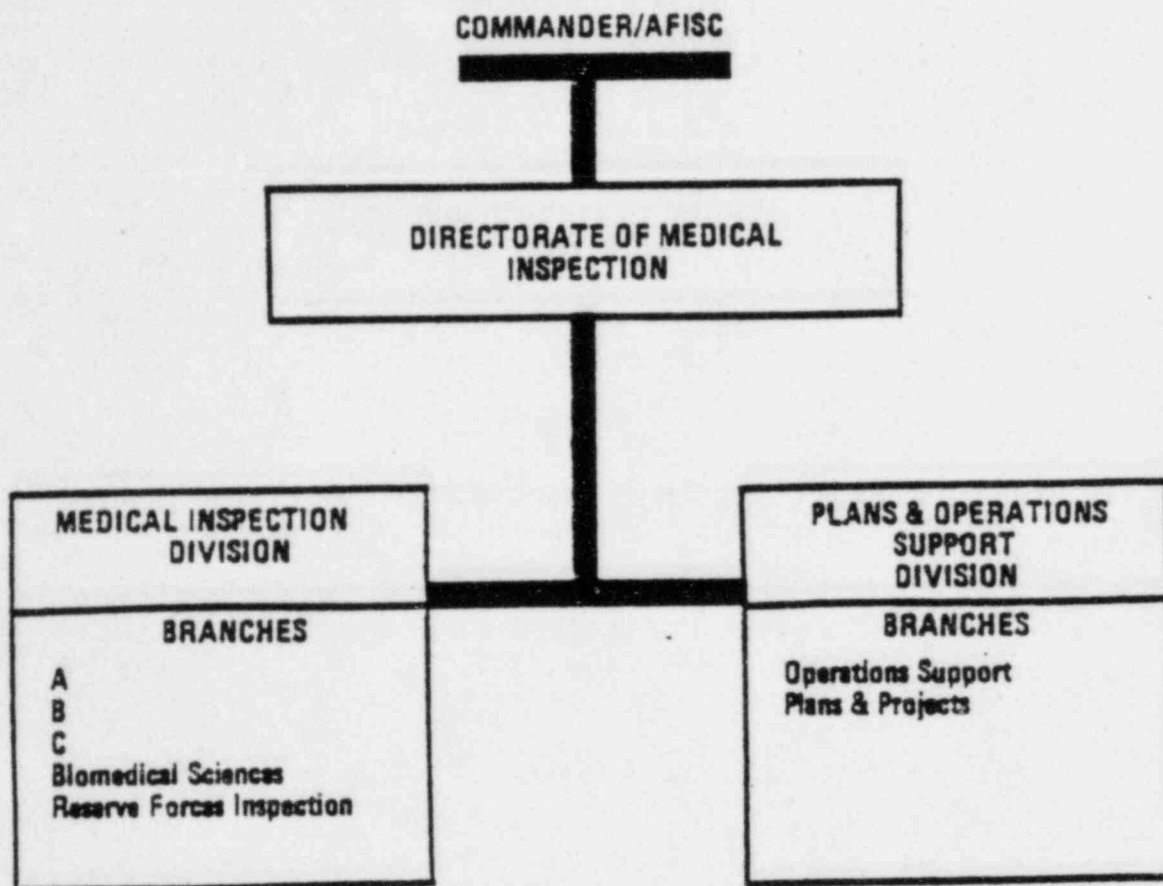
Evaluates flight safety aspects of fighter/trainer aircraft operations. Evaluates compliance with established safety directives. Participates in fighter/trainer mishap investigations when required. Provides flight mishap prevention guidance to USAF operational commands and units. Analyzes mishap reports to ensure adequacy of investigation and corrective action. Makes recommendations to correct flight safety deficiencies and monitors status of corrective actions. Interacts with responsible Air Force agencies as necessary to promote flight safety.

BOMBER/TRANSPORT BRANCH

Evaluates flight safety aspects of bomber/transport/helicopter and Aero Club aircraft operations. Evaluates compliance with established safety directives. Participates in bomber/transport/helicopter mishap investigations when required. Provides flight mishap prevention guidance to USAF operational commands and units. Analyzes mishap reports to ensure adequacy of investigation and corrective action. Makes recommendations to correct flight safety deficiencies and monitors status of corrective actions. Interacts with responsible Air Force agencies as necessary to promote flight safety.

FINAL EVALUATION BRANCH

Evaluates flight mishap reports and associated command correspondence. Analyzes flight mishaps and prepares final letters of evaluation. Makes recommendations to prevent mishap recurrence. Coordinates final letters of evaluation. Tracks flight mishap recommendations and prepares inputs for the computer storage of recommendation information. Reviews and coordinates material safety task group minutes. Performs semiannual review of open recommendations. Assists other divisions in preparation of final letters of evaluation. Interacts with responsible Air Force agencies as necessary to promote flight safety.



Directorate of Medical Inspection Organizational Chart

DIRECTORATE OF MEDICAL INSPECTION

Responsible for planning and directing all USAF and Air Reserve Forces medical inspection programs to ensure that the health of the Air Force active duty and reserve forces is maintained, the medical missions are accomplished, and the health care resources are managed efficiently and economically. Accomplished by performing Health Services Management Inspections (HSMI) of all active and reserve forces medical treatment facilities worldwide; ensuring, where applicable, their compliance with appropriate Air Force directives and the standards of the Joint Commission on Accreditation of Hospitals (JCAH).

MEDICAL INSPECTION DIVISION

Responsible for implementing the Air Force medical inspection program for active duty and reserve forces units. Provides professional and administrative assistance to the Director of Medical Inspection and other AFISC personnel on matters associated with the medical service and medical inspection. Monitors all medical inspection and investigation reports generated within the directorate.

MEDICAL INSPECTION BRANCH A/B/C

Conducts health services management and functional management inspections as directed by the Chief of the Medical Inspection Division. Evaluates the management policies, procedures, and practices concerning the various health disciplines of the Medical Service. Conducts investigative efforts in any special subject area, relating to the Air Force Medical Service, as required or directed. Advises the Chief of the Medical Inspection Division on the team composition required to accomplish any given inspection effort.

BIOMEDICAL SCIENCES BRANCH

Conducts health services management and functional management inspections as directed by the Chief of the Medical Inspection Division. Evaluates the management policies, procedures, and practices concerning the various disciplines of the Biomedical Sciences Corps of the Air Force Medical Service. Conducts investigative efforts in any special subject area relating to the Air Force Medical Service as directed or required. Advises the Chief of the Medical Inspection Division of biomedical team members to augment other branches on each inspection effort.

RESERVE FORCES INSPECTION BRANCH

Conducts health services management and functional management inspections of Air Force Reserve and Air National Guard medical units as directed by the Chief of the Medical Inspection Division. Coordinates with the Chief of the Medical Inspection

Division to establish, or revise, the inspection schedule. Coordinates with the surgeons of the Air National Guard and Air Force Reserve on inspection activities affecting their operations.

PLANS AND OPERATIONS SUPPORT DIVISION

Develops and coordinates with Director the plans and programs relating to medical inspection responsibilities assigned to the Directorate of Medical Inspection. Provides full administrative support to the Medical Inspection Division and its five branches, to include administrative typing support for report preparation, publication, distribution, follow-up, and analysis. Through the Plans and Projects Branch, provides the Director a single management source of analysis information concerning medical inspection reports. Establishes and implements policies and procedures relating to the management of administrative communications, distribution systems, and document and personnel security. Monitors all administrative actions within the directorate to ensure compliance with the Commander's policies. Chief of division also acts as executive officer to the Director.

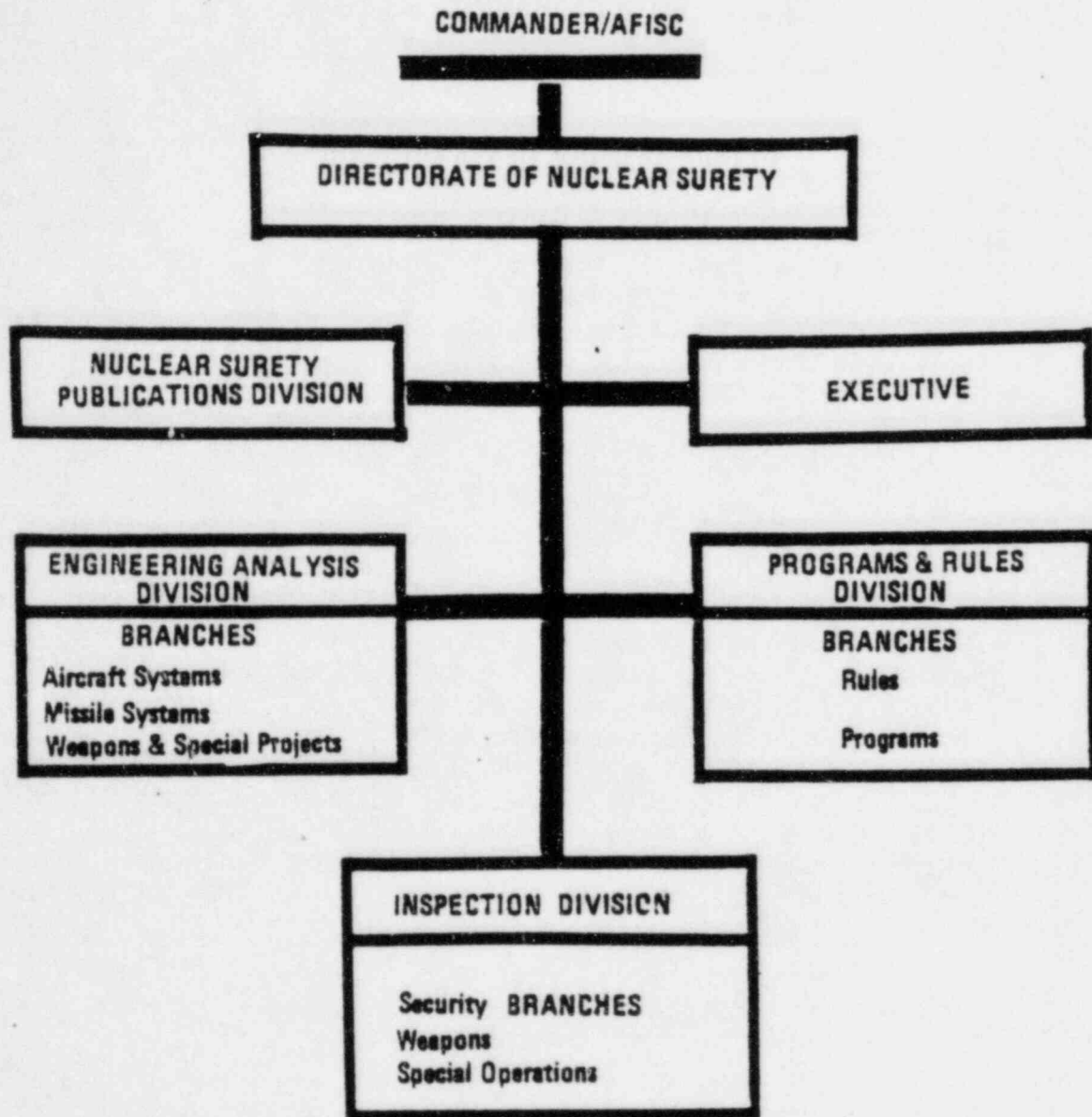
OPERATIONS SUPPORT BRANCH

Assists and advises the Chief, Plans and Operations Support Division, on all administrative support matters, and provides administrative clerical/stenographic support to entire directorate. Processes health services management and functional management inspection reports from draft through distribution stages. Monitors established inspection programs and coordinates/processes changes as necessary. Prepares and distributes inspection notification letters; prepares and processes travel orders for all directorate TDYs. Maintains inspection man-day utilization. Provides publications and forms management support to directorate. Establishes procedures for and controls all administrative communications. Maintains publications and professional reference library. Monitors use of administrative terminal systems within the directorate. Establishes security procedures and monitors directorate equipment utilization/requirements.

PLANS AND PROJECTS BRANCH

Assists the Chief, Plans and Operations Support Division, in the development of policy and guidance on matters involving medical inspections. Establishes and maintains computer programs to statistically analyze results of recent inspections and tracks corrective action. Provides computer products and inspection data to support preparation, conduct, and postinspection phases of programmed inspections. Prepares appropriate correspondence to Air Staff agencies, major commands, and The Inspector General

concerning inspection results, reply evaluations, and inspection policy matters. Acts as office of primary responsibility on special projects within the Directorate of Medical Inspection. Assists the data automation personnel in preparation of medical inspection data for computer storage.



Directorate of Nuclear Surety Organizational Chart

DIRECTORATE OF NUCLEAR SURETY

The Directorate of Nuclear Surety is responsible for planning, developing, directing, and evaluating the USAF Nuclear Surety Program. Inherent in the responsibility is the requirement to analyze and evaluate all aspects of nuclear surety and make recommendations to improve nuclear surety and the management of nuclear resources.

EXECUTIVE

Establishes and implements policies, procedures, and standards relating to administrative communications, distribution system, documentation management, personnel security, and military and civilian personnel management. Budgets for the operation of the Directorate. Monitors the flow of guidance from the Director to divisions and coordinates actions to ensure timely processing of all correspondence.

NUCLEAR SURETY PUBLICATIONS DIVISION

Provides editorial support services to the Director and divisions. Plans, develops, and publishes the USAF Nuclear Surety Journal (AFRP 122-1) which disseminates nuclear safety, security, and inspection information Air Force wide. Provides writing service and prepares camera-ready copy for all directorate-originated departmental regulations (AFR 122-series). Is the OPR for AF Pamphlet 122-7, which provides guidance in many areas of nuclear surety to commanders and other staff officials. Serves as liaison to HQ USAF/DAP for all directorate-originated Air Force regulations. Is the focal point for editing, and submitting nuclear surety articles for publication in TIG Brief and other professional publications. Prepares the directorate history. Administers that portion of the safety awards program (AFR 900-26) pertaining to the Air Force Nuclear Weapon Surety Program.

ENGINEERING ANALYSIS DIVISION

Functions as the USAF OPR for engineering aspects of nuclear safety on all USAF nuclear weapon systems. Provides engineering support to the Nuclear Weapon System Safety Group (NWSSG), other USAF organizations, the Department of Defense (DOD), and other government agencies on nuclear weapon systems safety. Evaluates the adequacy of nuclear safety in nuclear weapon system design and in the operations and procedures applicable to those systems. Analyzes Accident, Incident, Deficiency (AID) reports. Functions as the OPR for the Air Force Nuclear Safety Certification Program, Nuclear Safety Software Certification Program, and Nuclear Safety Design and Evaluation Criteria. Supervises,

plans, organizes, and coordinates the activities of the Aircraft Systems, Missile Systems, and Weapons and Special Projects Branches. Provides the DOD coordinator for the Interagency Nuclear Safety Review Panel (INSRP) dealing with space nuclear power systems. Establishes the nuclear safety position on USAF launches of minor radioactive sources.

AIRCRAFT SYSTEMS BRANCH

Provides staff technical supervision and Air Staff policy guidance for actions taken to correct nuclear safety problems on aeronautical systems. Provides engineering support to NWSSG chairperson for NWSSG safety studies and reviews. Provides technical interpretation of aeronautical weapon systems nuclear safety rules. Participates and provides Air Staff representation in nuclear safety deliberations during Air Force/industry weapon system meetings and conferences. Responds to field requests for nuclear safety technical evaluation of proposed tests, procedures, concepts, and requirements. Acts as OPR for the USAF Nuclear Safety Certification Program (AFR 122-3).

MISSILE SYSTEMS BRANCH

Provides staff technical supervision and Air Staff policy guidance for actions to correct nuclear safety problems on missile systems. Provides engineering support to the NWSSG chairperson for NWSSG safety studies and reviews. Provides technical interpretation of missile system nuclear safety rules. Participates in and provides Air Staff representation in nuclear safety deliberations during Air Force/industry weapon system meetings and conferences. Manages production and distribution of, and controls access to missile nuclear weapon system Unauthorized Launch Studies. Responds to field requests for nuclear safety technical evaluation procedures, concepts, and requirements. Is the OPR for Nuclear Safety Software Certification, AFR 122-6, AFR 122-9, and AFR 122-10.

WEAPONS AND SPECIAL PROJECTS BRANCH

Provides staff technical supervision and Air Staff policy guidance for actions taken to correct nuclear safety problems on warheads and weapons employed on nuclear weapon systems. Provides engineering support to NWSSG chairperson for NWSSG safety studies and rules. Participates and provides Air Staff representation in nuclear safety deliberations during Air Force/DOE/industry weapon development meetings and conferences. Responds to field requests for nuclear safety technical evaluation of proposed tests, procedures, concepts, and requirements. Provides

engineering support to the DOD INSRP coordinator for INSRP safety studies of major nuclear power sources in space. Provides engineering basis for approval of minor radioactive sources launched in space. Provides technical advice and develops policy regarding intrinsic radiation from nuclear weapons. Acts as OPR for chapter 10 of AFR 127-4, Nuclear Accident/Incident/Deficiency (AID) reports, and is the Air Force office of record for these reports. Analyzes AID reports for trends and initiates corrective action as required. Also acts as OPR for AFR 122-15 and AFR 122-16.

PROGRAMS AND RULES DIVISION

Provides management and support for the USAF Nuclear Weapon System Safety Group (NWSSG) to ensure all safety studies and reviews are accomplished as required. Provides the chairperson for the NWSSG. Develops working draft NWSSG reports which include the proposed nuclear weapon system safety rules. Obtains HQ USAF approval of NWSSG recommendations and HQ USAF/DOD approval and DOE and DNA coordination on the nuclear weapon system safety rules. Establishes the standards and policies for and evaluates the effectiveness of nuclear surety program management at all echelons. Conducts nuclear surety staff assistance visits to all levels of command. Maintains liaison with MAJCOM weapon safety staffs. Develops surety educational training materials to promote nuclear surety. Is OPR for all AFR 122-series regulations that outline Air Force nuclear surety programs, the specific nuclear weapon system safety rules, and safety studies and reviews. With the Air Force Manpower and Personnel Center, is jointly responsible for the implementation of the Air Force Personnel Reliability Program.

RULES BRANCH

Provides the Executive Secretary, Aircraft and Missile Action Officers, and administrative support for the USAF Nuclear Weapon System Safety Group (NWSSG) which performs required studies and reviews of all Air Force nuclear weapon systems. Develops working draft NWSSG reports which include the proposed nuclear weapon system safety rules. Obtains HQ USAF approval of NWSSG recommendations; HQ USAF and DOD approval and DNA/DOE coordination of the nuclear weapon system safety rules. Is OPR for all AFR 122-series regulations that outline the specific nuclear weapon system safety rules and the policies and procedures for safety studies and reviews. Provides Nuclear Surety policy and guidance to the MAC Prime Nuclear Airlift Force.

PROGRAMS BRANCH

Establishes and manages the Air Force Nuclear Surety Program. Monitors all major command nuclear surety programs, provides

staff assistance visits and conducts nuclear surety program reviews. Maintains liaison with MAJCOM weapon safety staffs; provides practical application and policy guidance for all nuclear surety program elements to include the two-man concept, sealing of nuclear components, and Personnel Reliability Program. Is the OPR for all AFR 122-series regulations that establish Air Force nuclear surety policies and programs. Is the office of primary responsibility for AFR 35-99, chapter 3 and office of collateral responsibility for the Air Force Personnel Reliability Program. Writes nuclear surety educational materials.

INSPECTION DIVISION

Evaluates the effectiveness of the nuclear weapons inspection program in the USAF and the Air National Guard. Performs functional management (FMI), over-the-shoulder (OTSI), and limited nuclear surety inspections (LNSI). Performs special reviews of the nuclear surety program as directed by The Inspector General. Performs trend analysis of nuclear surety inspection results and provides the analytical and trend information to appropriate Air Force agencies and the major commands. Publishes nuclear surety inspection information in appropriate Air Force safety periodicals. Acts as the USAF point of contact with the Defense Nuclear Agency (DNA) for all nuclear surety issues as directed by the Director of Nuclear Surety. Accompanies DNA inspection teams and functions as the Air Force liaison between the teams and the Air Force unit being inspected. Plans, directs, and supervises the activities of the Weapons Branch, the Security Branch, and the Special Operations Branch.

WEAPONS BRANCH

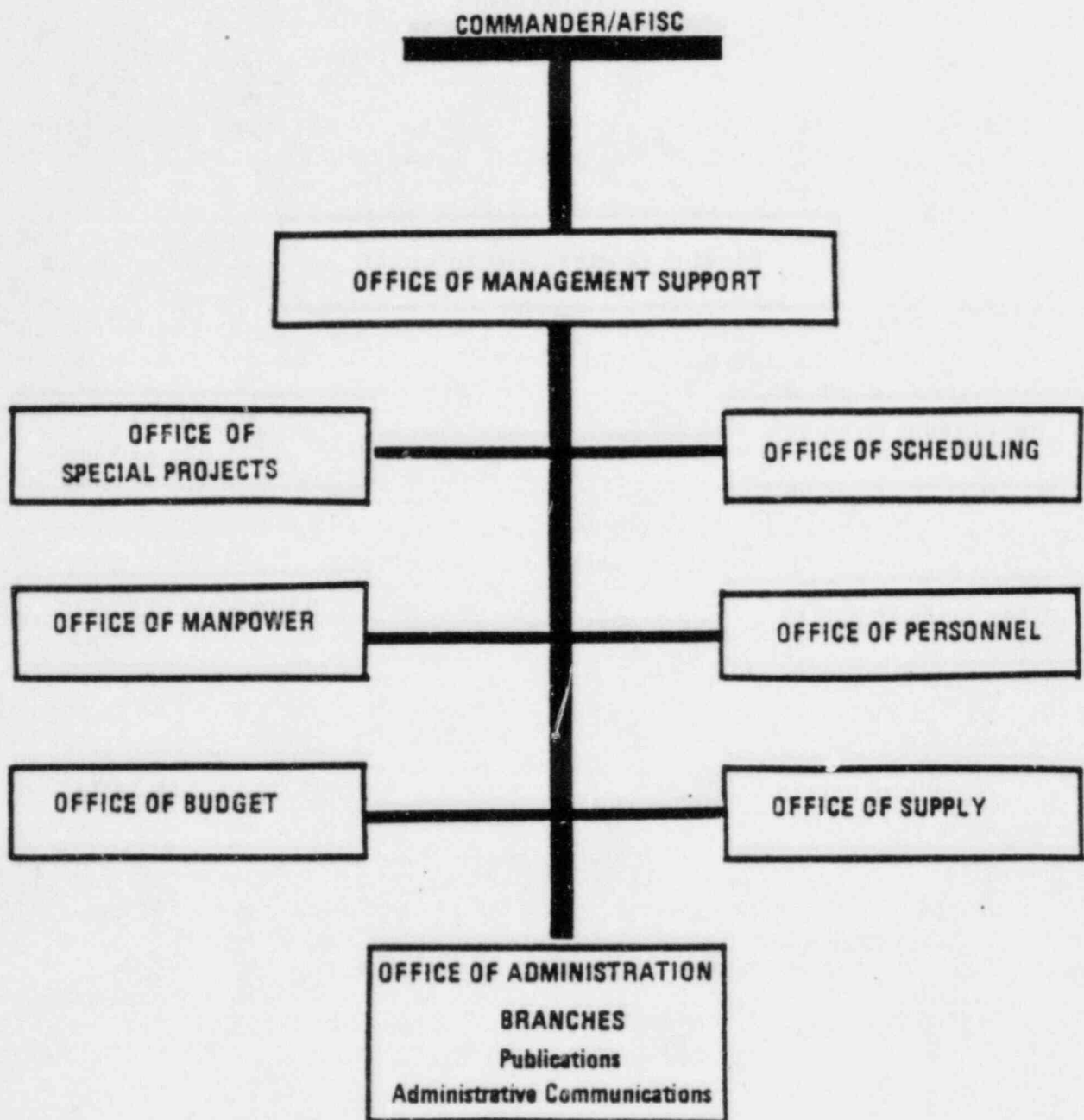
Establishes policies, requirements, and procedures for conducting inspections of USAF nuclear-capable units in weapon-related functions and activities. Reviews and evaluates major command nuclear weapon inspection criteria, criteria application, and inspection standards. Coordinates nuclear weapon inspection matters with DNA to include deconflicting schedules, monitoring and coordinating USAF unit inspection replies and indorsements to DNA, forwarding DNA inspection analyses to USAF units, and accompanying DNA on their inspections of USAF units. Maintains and monitors inspection requirements and data on all Air Force nuclear-capable units. Maintains liaison with Sandia National Laboratories, AFLC Nuclear Support Office, and the Directorate of Special Weapons. Provides expertise to the directorate in the areas of weapons maintenance, handling, and loading; explosive ordnance disposal; and nuclear stockpile custody and accountability.

SECURITY BRANCH

Establishes standards and develops policies for the USAF Nuclear Surety Inspection Program to ensure compliance with DOD and Air Force Nuclear Security criteria standards. Conducts special reviews of the nuclear security system as directed by The Inspector General. Examines the effectiveness of Air Force Security Police and major command nuclear security guidance and inspection programs. Identifies factors affecting security upgrade and security manpower program. Maintains liaison with AFOSP and Sandia Laboratories during phases of development and evaluation of security criteria for new security systems. Monitors current and future AFOSP projects involving access delay/denial systems to counter the potential terrorist threat aimed at priority resources. Participates in directorate and air staff surveys and conference concerning nuclear security activities. Advises the Nuclear Weapon System Safety Group on nuclear security issues.

SPECIAL OPERATIONS BRANCH

Establishes policies, requirements, and procedures for conducting inspection of USAF nuclear-capable units in the areas of nuclear airlift, personnel reliability, nuclear safety, and command and control. Provides directorate liaison with MAC relative to nuclear airlift. Schedules and arranges inspections of nuclear airlift missions and of the base support provided to nuclear airlift missions. Coordinates with the offices of primary responsibility for command and control, the Personnel Reliability Program, and the nuclear surety program relative to the inspection of these activities.



Office of Management Support Organizational Chart

OFFICE OF MANAGEMENT SUPPORT

Establishes procedures and controls for providing the Commander and Center staff with supply, administration, personnel, financial management, manpower and organization, and travel support. Coordinates Center support requirements with Norton AFB installation commander and appropriate base staff agencies. Serves as security manager responsible for control of all Center classified documents. Serves as HQ squadron section commander and exercises command jurisdiction, concurrently with AFISC Commander, over military personnel assigned to the Air Force Inspection and Safety Center. Responsible for the morale, welfare, and discipline of assigned personnel.

OFFICE OF ADMINISTRATION

Provides the Commander and his staff with administrative, graphic, and general support services. Designs, establishes, and manages administrative systems and services, and supplements higher headquarters directives to meet distinct AFISC requirements. Advises on administrative matters relevant to worldwide inspection and safety programs. Provides staff supervision for personnel, document, and administrative security programs; documentation management; and Freedom of Information and Privacy Act programs. Acts as the focal point for special orders and ensures that all orders published are authenticated, reproduced, distributed, maintained, and retired or destroyed in accordance with AFR 10-7 and other pertinent directives. Designs, implements, and monitors word processing systems. Responsible for managing general support services, housekeeping, and facilities utilization activities. Responsible for facilities maintenance of Bldg 918. Provides word processing services in support of the Commander, Directorates of Inspection and Aerospace Safety, Office of Management Support, and selected activities within AFISC. This includes dictation, typing, and producing finished copies of special studies, reports of inspection, and correspondence. Provides storage and retrieval capability for all correspondence processed through the word processing center. Provides capability to transmit documents to and receive documents from any activity with compatible word processing equipment. Provides visual aid and illustration support for AFISC. Designs and prepares technical charts, illustrations, and a variety of visual aids to support AFISC requirements. Provides composition, layout, and design for technical information in safety publications. Prepares publications, reports, and illustrations for Government Printing Office printing. Prepares camera-ready art for all AFISC reports and studies printed by military/commercial printing plants. Provides technical review of information used in media displays. Provides administrative support for all assigned personnel. Responsible for issuing meal cards, motor vehicle decals, processing military leaves, and scheduling

appointments for promotion testing, records review, and medical requirements. Also, administers special programs such as ancillary training and physical fitness. Coordinates all military air travel by AFISC personnel which includes processing transportation requests, is airlift validator for MAC Central Scheduling and coordinating itineraries when necessary.

ADMINISTRATIVE COMMUNICATIONS BRANCH

Sorts, processes for delivery, and distributes incoming administrative mail received from the Base Information Transfer System (BITS) for all AFISC staff offices; provides referral service for improperly addressed mail; operates a mail dispatch facility and meters all outgoing mail; issues and monitors the use of boxes, envelopes, and labels for all official communications dispatched to off-base activities; advises staff distribution offices of mail schedules and the correct procedures for dispatching mail. Receives, routes, reproduces, and distributes incoming message communications to all AFISC activities. Reviews for correctness, assigns date-time-group, and dispatches all outgoing message communications through the BITS. Operates and performs minor maintenance on AFISC common use copiers and telecopier equipment. Develops administrative policies and procedures for the accountability and control of classified material up to and including Top Secret, performs document security functions, and provides staff supervision over security functions for the Center. Manages the AFISC Address Indicating Group (AIG) and documentation management programs.

PUBLICATIONS BRANCH

Responsible for the Publications and Forms Management Programs for AFISC. Designated Master Publication Library for AFISC; a centralized repository of standard and specialized publications and technical orders. The activity focal point (Publications Distribution Office) to receive and distribute publications. Orders and distributes all subscriptions and technical reference publications for AFISC. Maintains USAF, MAJCOM, DOD, JCS, OSHA publications for inspection efforts. Retains files of AFISC and command FMI, MEI, and OTSI reports.

OFFICE OF SCHEDULING

Acts as a focal point for programming of AFISC travel activity. Receives, consolidates, and monitors MAJCOM/SOA and AFISC inspection/staff visit schedules. Coordinates and processes program changes from AFISC directorates on approved efforts. Prepares microfiche of AFISC and MAJCOM inspection efforts and makes distribution to worldwide Air Force locations weekly. Serves as office of primary responsibility for AFR 11-13 which

governs deconfliction of staff field visits of five or more team members. Notifies appropriate personnel within AFISC and MAJCOMS of potential travel conflicts to common locations. Maintains a master history computer file of all command and AFISC inspections and noninspections. Maintains a system for numbering all AFISC field travel activity.

OFFICE OF BUDGET

Is the financial management advisor to the Commander and staff. Chairs the Financial Working Group (FWG) and provides training, guidance, and assistance to cost center resource advisors on aspects of operating budget preparation and control of allocated funds. Finalizes command operating budget and financial plans, and defends requirements before the Air Force Operating Budget Review Committee. Receives and distributes operating budget authorities to support approved programs. Monitors expenditures and maintains control of the Commander's miscellaneous morale, welfare, and contingency fund expenditures.

OFFICE OF MANPOWER

Determines manpower requirements by grade and Air Force specialty code to accomplish the assigned AFISC mission. Provides manpower information, advice, and assistance to the AFISC Commander and his staff. Conducts studies and analyses affecting distribution and utilization of manpower resources. Recommends revisions to current and programmed AFISC resources based on changes in mission or workloads. Recommends allocation of additional manpower authorizations, when required, and develops unfunded manpower requirement Program Decision Packages (PDPs). Develops and implements AFISC organizational structures, policies, and changes. Monitors the Commercial/Industrial Type Activities (CITA) Program. Conducts general officer and colonel position reviews, and justifies rated requirements. Responsible for host-tenant support agreements between AFISC and other commands. Functions as office of primary responsibility for AFR 23-15, and for all AFISC regulations pertaining to manpower and organization. Productivity principle, implementing all productivity enhancement programs within AFISC. Conducts functional reviews of all work centers within the Center.

OFFICE OF PERSONNEL

Advises the Commander and staff on personnel matters. Administers the personnel policies of the Commander, including the development of procedures to implement these policies and the publication of appropriate directives. Provides personnel support for officers, airmen, and civilians assigned to AFISC. Single manager for coordination of assignment actions with HQ USAF/IG, HQ USAF/MPC, and the host base CBPO. Coordinates

reserve officer matters with Air Reserve Personnel Center (ARPC) and USAF/RE, Washington DC. Administers the unit OER/APR program; the military awards and decorations program, the Individualized Newcomer Treatment and Orientation (INTRO) Program; and the technical, special, and professional training and education programs. Coordinates with HQ USAF/MPR and Office of Civilian Personnel Operations (OCPO) on civilian matters; and the host base CCPO concerning civilian personnel actions such as recruitment, placement, separation, and grievances. Reviews all requests for military and civilian personnel actions. Manages the command civilian training budget; administers the Merit Pay System, performance evaluation system, Incentive Awards Program, youth employment programs, Handicapped and Disabled Veterans Program; and monitors grade and salary control. Maintains Officer Command Selection Record Group (OCSR). Monitors Command EEO and EOT programs. Monitors the operation of computer programs for personnel systems.

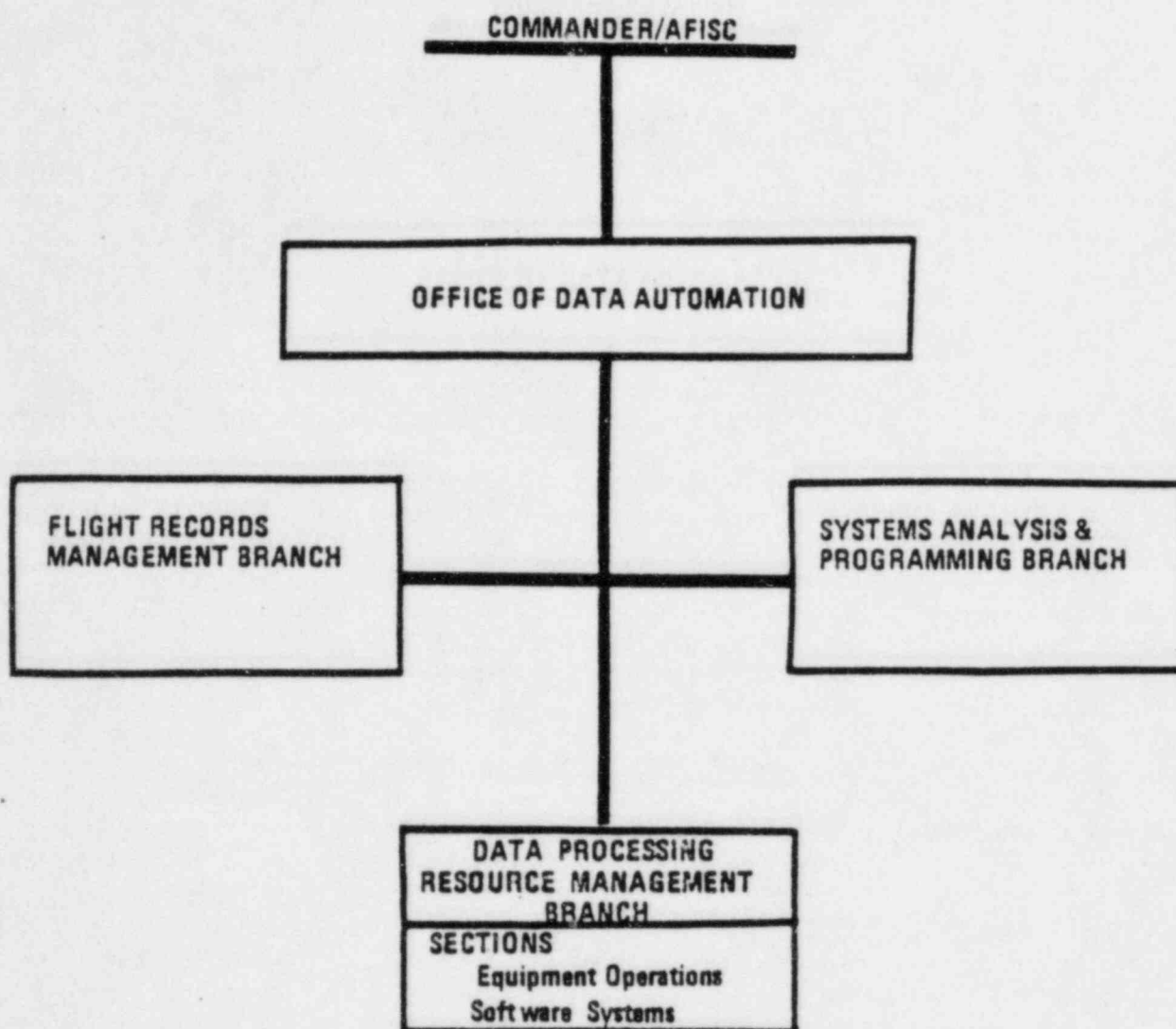
OFFICE OF SUPPLY

Initiates purchase requests for appropriated fund contract repair service, nonpersonal services recurring/nonrecurring, preventive maintenance service, and rental. Computes rent versus buy comparison worksheets for long-term rentals (over 30 days). Prepares and maintains accountability records. Procures, stores, and issues required supplies for continual operation. Verifies all equipment requirements to ensure valid allowances exist prior to requisitioning action. Prepares annual budget estimates for supplies and equipment from inputs provided by the staff. Performs inspection and inventory of organizational assets. Acts as a customer service liaison by providing technical assistance and advice to the staff pertaining to the USAF standard base supply system (SBSS).

OFFICE OF SPECIAL PROJECTS

Conducts special projects for the Commander and maintains working interface with each directorate. Responds, on behalf of USAF, to alleged violations of flying regulations. Reviews Air Force planning and programming documents for applicability for AFISC functions. Serves as focal point for HQ USAF/IG-directed ancillary training courses. Serves as Center OPR for the Secretarial Program Review (SPR) program, Weapon System Program Assessment Review (WSPAR) program, and USAF War and Mobilization Plan (WMP-1). Responsible for submitting information briefs in support of SECAF's, CSAF's, and DOD staff visits to installation worldwide. Complies and forwards monthly activities report to The Inspector General. Serves as Center OPR for AFISCRs 10-9, 27-1, 60-1, and 120-1. Responsible for crossfeed of information to include TIG Brief and Daily Staff Digest articles and other information products having multiple directorate interest.

21 March 1983



Office of Data Automation Organizational Chart

OFFICE OF DATA AUTOMATION

Provides the Commander and his staff with automated data processing and data systems support. Schedules, operates, manages, and maintains the AFISC computer and related automatic data processing resources and equipment. Determines requirements and monitors contracts and payments for data processing equipment and software rental, maintenance, and related services. Designs, develops, and maintains automated data systems in support of the AFISC mission areas of inspection, aerospace safety, inquiries and complaints, and other designated subject areas. Serves as the USAF records custodian and repository of rated flying time for Air Force, Air Force Reserve, and Air National Guard personnel through operation and maintenance of the automated Flight Records Data System.

Provides information retrieval capability commensurate with customer needs through on-line inquiries, batch processing, or recurring products in printed or microfiche form. Provides automated data processing consultant services to USAF inspection and safety programs worldwide. The Chief of Data Automation serves as the ADP Program Single Manager for AFISC in accordance with AF 300-series directives.

FLIGHT RECORDS MANAGEMENT BRANCH

Serves as USAF custodian and repository for individual flight records of rated Air Force, Air Force Reserve, and Air National Guard personnel dating from 1911. Operates and maintains the Flight Record Data System (FRDS), which includes the origination of directives and correspondence to ensure proper data flow and accuracy of input data received on a monthly basis from Air Force flying activities, worldwide. Provides data output and audit services as they pertain to the FRDS for bases/units, major commands, and HQ USAF in the form of data retrievals; extracts information from updated master files for interface with other data systems. Provides replacement copies of flight records to individuals, as required. Researches archival records to answer requests for data as received from HQ AFMPC, HQ AFAFC, Military Personnel Records Center, the Veterans Administration, etc. Provides micrographics services for the Center and other base activities using computer output microform equipment.

DATA PROCESSING AND RESOURCE MANAGEMENT BRANCH

Schedules, operates, manages, and maintains the AFISC computer system and related equipment. Monitors system performance and utilization to ensure effective scheduling, hardware design, software systems, and operating procedures. Maintains the operational tape library and an alternate site library for data protection and emergency recovery. Installs and maintains all

system software. Reviews, plans, modifies, and implements electronic data processing equipment and service requirements. Determines the budget for all ADP requirements and monitors fund availability and usage. Monitors contracts and originates documents to ensure proper administration of contracts relating to electronic data processing maintenance services and rentals.

EQUIPMENT OPERATIONS SECTION

Operates, schedules and maintains the AFISC computer system and associated equipment in support of the Center mission. Maintains the magnetic tape library and transports tapes to and from an alternate site library. Provides liaison with vendor representatives. Plans and implements site preparations and modifications for equipment installation. Administers AFISC coordination with the DOD excess ADP equipment system. Initiates purchase requests, contract specifications, and analysis documents for services and/or equipment acquisition. Participates in the ADP planning cycle and budgeting system.

SYSTEMS SOFTWARE SECTION

Generates, monitors, and maintains the AFISC computer operating system and all manufacturer supplied software systems. Designs, programs, and implements software needed to complement installed systems. Determine causes of hardware and software malfunctions and apply appropriate corrective action. Serve as the AFISC technical representative for ADP matters with other Air Force units, government agencies, and commercial vendors. Perform technical evaluation of next generation hardware and software for possible use at the Center. Participate in the ADP planning and budgeting process. Review Data Automation Requirements submitted by functional offices. Develop and implement Data Project Directives.

SYSTEMS ANALYSIS AND PROGRAMMING BRANCH

Designs, develops documents, and maintains all computer application software to support all aspects of the AFISC mission. Assists staff analyses and data users in defining data system needs and preparing the Data Automation Requirement (DAR) documents. Performs studies on feasibility and methods of automating requirements. Conducts functional area systems analyses in coordination with user project personnel to define necessary outputs, input sources and required data elements, information flow, and procedures needed for implementation. Performs data systems analysis to describe files and programs needed, computer storage and processing requirements, and the logical flow of processing steps from input to final output. Designs and develops data files and program logic. Tests and implements

programs and necessary interfaces to ensure an accessible data audit trail and responsive information outputs. Prepares necessary system, program, operations, and user documentation of operating procedures and responsibilities. Maintains operational system throughout the system life cycle.

DEPARTMENT OF THE AIR FORCE
HQ Air Force Inspection and Safety Center
Norton Air Force Base, California 92409

AFISC REGULATION 120-1

15 August 1982

Inspector General

OPERATIONS AND PROCEDURES

This regulation establishes responsibilities and procedures for planning, conducting, and reporting AFISC field efforts. It applies to all AFISC directorates.

This regulation is affected by the Privacy Act of 1974. Each form that is subject to the provisions of AFR 12-35, Air Force Privacy Act Program, and required by this publication contains a Privacy Act Statement incorporated in the body of the document. Authority Title 44, U.S. Code 3101, Title 10, U.S. Code 8032, and Executive Order 9397.

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Supersedes AFISCR 120-1, 1 June 1980. (For summary of revised, deleted, or added material, see signature page.)

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CHAPTER 1

GENERAL

1-1. Introduction. This regulation addresses requirements and/or procedures that pertain to two or more Air Force Inspection and Safety Center (AFISC) directorates. Some requirements do not apply to all AFISC directorates; therefore, judgment must be exercised when applying this regulation. Activities unique to a particular directorate will normally be formalized in separate directorate instructions. This regulation will be reviewed and revised as warranted. Directorates should submit suggested changes to the Office of Special Projects (CSS).

1-2. The Inspection System. Personnel assigned to AFISC are expected to read the following directives to establish and maintain an understanding of the inspection system:

- AFR 20-68, Inspector General Activities
- AFR 23-15, Air Force Inspection and Safety Center
- AFR 123-1, The Inspection System
- AFISCR 23-1, Mission Directive of AFISC
- HP 21-1, Department of AF Organization and Functions Handbook
- HQ USAF HOI 11-3, Selection of Aerospace Systems or Subsystems for System Acquisition Management Inspections
- HQ USAF HOI 120-3, Air Staff Participation in The Inspector General Program
- Directorate Operating Instructions
- AFISC 500-series regulations

1-3. Relationship Between Safety and Nuclear Surety Field Efforts and the Inspection System.

a. Safety field efforts conducted by members of the Directorate of Aerospace Safety (SE) and staff visits conducted by the Directorate of Nuclear Surety (SN) are not part of the inspection system, per se. SE/SN efforts are generally in the interests of staff assistance or safety program evaluations; however, SN does perform inspections.

b. Safety and certain nuclear surety programs are inspected by professionals assigned inspection duties in the Directorate of Inspection (IG) or SN. These activities are inspected like any other functional area; e.g., supply, personnel, or operations.

c. Personnel assigned to SE may augment and participate in an inspection. When a member of SE augments an inspection team, the augments becomes an inspector and is responsible to the inspection team chief.

d. An observer from SN accompanies Defense Nuclear Agency (DNA) teams during their inspections of Air Force units. As observers, SN represents Air Force interests during the DNA inspections. The SN observer monitors the inspection to insure the unit is inspected IAW DOD policy as implemented by Air Force directives. The SN observer also attends the DNA team meetings in order to answer questions regarding Air Force policy.

1-4. Inspection Philosophy.

a. Understanding the philosophy of inspection requires examination of the overall Air Force inspection system to appreciate the interplay of its parts. The inspectors assigned to AFISC comprise approximately 10 percent of the inspection force of the Air Force; the other 90 percent operate in the MAJCOMs and SOAs. Each level of inspection has its own scope and objectives; however, each is an integral part of the overall Air Force inspection system.

b. The mission of any inspection function is to determine the effectiveness and efficiency of the unit or system under surveillance. In accomplishing their mission, inspectors must identify commendable and/or unsatisfactory performance and determine the cause. Above all, they must actively pursue major problems threatening mission capability. When problems have intercommand impact, it is imperative that the information be disseminated properly and promptly. Inspection follow-up activity, instituted as a result of the IG Act of 1978, is designed to insure corrective actions permanently fix the root cause of problems/deficiencies identified during the inspection process.

c. Each MAJCOM and SOA inspection function is limited to examining the missions and units within its command jurisdiction. AFISC, by virtue of its mission, has an Air Force-wide scope of surveillance.

d. A basic responsibility for every inspector is to be alert to the potential for fraud, waste, and abuse (FW&A). The inspector should refer improprieties or suspicious circumstances disclosed from inspections to the local AFOSI. Mismanagement, lack of accountabilities, or inadequate controls contribute to vulnerabilities that allow FW&A to occur.

1-5. AFISC Inspection Operations. AFISC inspection operations may be categorized in nine primary areas: analysis, over-the-shoulder, health management, functional management, chaplain services management, system acquisition management, nuclear surety, intelligence oversight, and followup.

a. The overall task of AFISC's analysis function is to identify major problem areas through analysis of inspection reports and activities. Problem areas are analyzed to determine the agency best suited to handle them and the time frame required. AFISC's analysis activity collects data from various levels within the Air Force, and analysis products can be channeled to those parts of the inspection system best able to deal with them. Analysis capabilities are dependent upon inputs from various inspection functions and agencies, and upon AFISC's data processing

capabilities since much of the analysis is dependent upon standardization of inspection philosophy, technique, and reporting. Standardization is achieved through agreement and crosstalk among inspection personnel, attendance of all inspectors at the Inspection School, publication of TIG BRIEF articles, the criteria approval process, command monitoring program, and the over-the-shoulder inspection program.

b. The Over-the-Shoulder Inspection (OTSI) examines the effectiveness of MAJCOM/SOA inspection teams through observation during inspections. It probes internal operations of MAJCOM/SOA inspection systems, to include planning and programming for the inspection, conducting the inspection, and the reporting and follow-up process.

c. The Health Services Management Inspection (HSMI) inspects all active and Air Reserve Forces USAF medical units and activities. HSMIs identify problems which would impede a medical unit from accomplishing the missions assigned by the Air Force Surgeon General.

d. The Functional Management Inspection (FMI) is the primary vehicle for evaluating both horizontally and vertically the effectiveness, efficiency, and economy of management systems. Inspectors sample a specific function within two or more MAJCOMs/SOAs. The primary purpose of an FMI is to identify problems and recommend corrective actions requiring MAJCOM/SOA, Air Staff, or CSAF action. If, during the field effort, significant problems are not indicated, termination of the effort should be considered.

e. The Chaplain Services Management Inspection (CSMI) is an evaluation of the chaplain program at unit/base level. The Chaplain Branch performs all CSMIs throughout the Air Force.

f. The System Acquisition Management Inspection (SAMI) is an Air Force-wide evaluation of selected aerospace system/ subsystem programs or functions during the acquisition process. It provides Air Force management with an assessment of the effectiveness of program management. For further details, see HQ USAF HOI 11-3.

g. The Limited Nuclear Surety Inspection (LNSI) is conducted by members of the Inspection Division, Directorate of Nuclear Surety (SNI) at nuclear weapons units. The purposes of LNSIs are to review deficiencies identified during previous NSIs, effectiveness of unit corrective actions, adequacy of staff participation in resolving problems, and adequacy of support of prime nuclear airlift force (PNAF) missions by selected organizations.

h. Intelligence Oversight is monitored by the AFISC Intelligence Inspection Branch (IGAI) to insure USAF compliance with Executive Order (EO) 12036. IGAI performs this task during functional management, management effectiveness, and over-the-shoulder inspections by observing unit and major command activities governed by the EO, DOD implementing directives, and Air Force regulations.

i. Inspection follow-up operations close the inspection system loop by insuring appropriate corrective action is taken on all problems identified in USAF IG inspection efforts. Responses are evaluated and coordinated with the appropriate AFISC functional division(s). Corrective actions deemed insufficient to resolve the problems are readdressed to the action agency for further action. Time-delayed corrective actions are tracked until verification that corrective action has resolved the finding(s). Inspection follow-up operations help to improve the effectiveness of the inspection system by providing qualitative and quantitative assessments of actions taken on inspection reports. In addition, they provide necessary feedback to TIG, AFISC/CC/IG, Air Staff, MAJCOMs, and unit commanders.

1-6. The Inspector.

a. Inspectors are selected through an extensive screening process. New inspectors must transition from their functional career field environment and operate within the demands of the inspection mission. Individuals selected for inspection duties will attend the Inspection School. Inspectors should attend the course after taking part in at least one, but not more than three inspection trips. Those who do not complete the course within 90 days of arrival will not perform field inspection duties until the course is completed.

b. The role of inspection is specifically addressed in AFM 26-3, Air Force Manpower Standards. In explaining the inspection function manpower authorizations, it states:

It is Air Force policy that . . . the inspection system determines the cause factors that produce major problems rather than operate as a function to insure detailed compliance with instructions of all types. Normally, compliance matters are considered to fall within the scope of responsibility of the functional staff of the commander.

c. Compliance cannot be disregarded just because it is primarily the responsibility of the headquarters staff agencies. It must be viewed in its proper perspective, as a symptom, rather than the disease itself. Identifying noncompliance items is the easiest part of any inspector's job. But it is only the beginning, not the finding itself. Inspectors should overcome the natural tendency to elevate minor noncompliance to a major finding.

d. The successful inspector is the one who, through application of judgment, separates the unimportant from the important. The inspector searches for the major causes and pursues those which have a direct bearing on major problems. It is more important to identify one major problem, isolate its cause, propose a logical solution, and identify the agency best suited to correct the problem, than to report many instances of irregularities, discrepancies, and minor deficiencies. Normally, these instances are signposts pointing to the major problem. They may be legitimately cited as supporting material to illustrate the problem, but should not be considered categorically as problems themselves.

e. The most difficult task the individual inspector has is to shift his/her thinking from the observation and notation of symptoms to the identification of major problems whose cause and solution might be echelons removed. The inspector must apply the test of the condition-cause-impact relationship followed by asking why. If the condition observed has little or no impact on the mission, it should not be pursued. On the other hand, if the condition has an immediate impact, or can logically be forecasted to jeopardize the mission, there is a problem which should be pursued to its cause.

f. Identifying a major problem is basic to any finding. In many instances, the responsible commander or staff agency chief may be aware of some aspects of the problem, but, needs help in identifying the cause. In recommending solutions, the inspector has no authority to direct who will accomplish the task or how the problem must be corrected. The inspector can recommend a logical solution to the problem, but, not issue orders.

g. Validation is another important aspect of the inspection process. This is the process of confirming or substantiating the validity of facts or conditions discovered during the inspection effort with the responsible officials. This process may also assist in establishing the causes and provide insight into the best corrective action. Also, the validation phase enables the inspector to solicit recommendations regarding report distribution and to determine who should be briefed at the various staff levels.

h. After the findings have been published, the follow-up process begins. Replies often require evaluation from both the Inspection Follow-up and Analysis Division (IGF) as well as from the various inspectors who participated in this inspection. IGF participates in the inspection process by monitoring and tracking corrective action taken as a result of inspection reports. Analyses are also performed to identify subject areas for possible future inspections and to provide crossfeed to staff activities. Inspections that fall under the purview of SN are normally evaluated, monitored, tracked, and analyzed by that directorate.

CHAPTER 2

PROGRAMMING

2-1. Objective. Programming is an essential element of efficient management of the Air Force inspection system. It must provide:

a. A capability to maintain surveillance of MAJCOM/SOA inspection programs.

b. A means to insure optimum use of inspection and safety resources assigned to AFISC.

c. Factual information on which to base decisions regarding employment of AFISC resources, economical and efficient movement of teams and individuals, and selection of locations and activities for field efforts.

d. Sufficient information to determine the degree of MAJCOM/SOA compliance with inspection requirements stipulated in AFR 123-1.

e. A capability to monitor MAJCOM/SOA inspection and staff visit schedules to coordinate efforts and reduce conflicts.

2-2. Sources of Field Effort Subjects. Subjects originate from such sources as OSD, SAF, CSAF, TIG, Air Staff agencies, MAJCOMs/SOAs, and within AFISC. They include:

a. Items of concern to OSD, SAF, CSAF, and TIG. These are generally received through channels by correspondence; however, these requirements may also be expressed in the Air Staff Digest, Medical Service Digest, CSAF guidance messages, or orally.

b. Air Staff recommendations normally received through formal correspondence as prescribed in HQ USAF HOI 120-3.

c. Indications of situations which may require inspections that are obtained by AFISC personnel while on field trips, from direct contacts with the Air Staff or MAJCOMs/SOAs, and through analysis of field efforts and MAJCOM inspection reports.

2-3. Responsibilities.

a. The Office of Management Support (EM) is an essential element of the programming process. This office provides the Commander and staff support in financial management, manpower, personnel, administration, and normal housekeeping functions. For EM, the Office of Scheduling (EMS) handles the primary responsibilities in the programming process. These include:

(1) Receiving, consolidating, and monitoring MAJCOM/SOA and AFISC inspections/staff visit schedules.

(2) Maintaining a central scheduling facility to assist MAJCOMs/SOAs and AFISC directorates in scheduling and controlling field efforts by notifying them of conflicting schedules.

(3) Providing MAJCOMs/SOAs, TIG, and AFISC directorates with updates of AFISC field efforts.

(4) Maintaining a system for numbering all field efforts. A block of numbers will be assigned to each directorate to identify efforts and will be placed on correspondence, program changes, reports, and other documents related to a specific field effort.

b. The AFISC Transportation Coordinator (LGT) is responsible for coordinating and monitoring the AFISC military air (MAC) transportation requirements.

c. The Office of Special Projects (CSS) is responsible for:

(1) Serving as OPR for the AFISC Monthly Activities Report to TIG describing significant inspection and safety activities.

(2) Serving as focal point for all AFISC articles for TIG Brief.

d. Individual directorates are responsible for:

(1) Establishing control points (office/individual) to review the AFISC Form 50, TIG Schedule, data to include assigning project numbers prior to submitting to EMS. Instructions for completing AFISC Form 50 are in attachment 1.

(2) Identifying and processing subjects for field efforts based on analysis of inspection results, Air Staff recommendations, or nominations from other sources. This includes developing rationale for the effort and the recommended itinerary. When submitting an approved inspection effort to EMS for computer processing, a clear, concise purpose and scope, time frame, and name of project officer must accompany the AFISC Form 50.

(3) Submitting AFISC Form 50 to EMS to initiate, change, and terminate field efforts. Administrative changes to field efforts; i.e., itinerary changes and changes in team composition will also be accomplished via the AFISC Form 50. If administrative airlift has been requested (AFISC Forms 51, CONUS Airlift Requirement) in conjunction with a field effort and changes in itinerary or team composition occur, the responsible directorate (office/ individual) will immediately notify LGT, who will coordinate the change with the agency providing the airlift support. (See paragraph 3-8 for other transportation and travel-related requirements.)

(4) By the 10th of each month, a master listing of previous months' completed field efforts will be forwarded to appropriate directorates. This listing will be validated and returned to EMS not later than the 25th of the current month. (See attachment 2 for procedures used to validate.)

(5) Forwarding information copies of analysis products, including summaries of special analysis efforts, for review and crossfeed to other directorates as required.

(6) Maintaining records (project folders for inspections) of active field efforts.

(7) Receiving and evaluating report replies.

(8) Coordinating field effort programs, reports, and requests for information with AFAA. See AFISCR 120-4, Coordination of Inspection and Audit Efforts, for details on the coordination process.

2-4. Programming Procedure. Programming is essentially a continual process of field effort development and coordination. The internal procedures for accomplishing the process may vary among directorates; therefore, in addition to the general comments in this paragraph, each directorate should publish detailed directives on its programming procedures.

a. EM will schedule and conduct reviews of planned field efforts as required by the Commander.

b. Proposed inspection itineraries will be coordinated with EMS to avoid (where possible) conflict with MAJCOM inspection schedules.

c. All inspection proposals will be approved by the Commander and then submitted to the Office of Scheduling (EM) using AFISC Form 50. When subsequent changes to programmed efforts occur, they will be submitted to EMS using AFISC Form 50. Initial and subsequent Forms 50 must be submitted as soon as possible so that inspection information distributed to MAJCOMs/SOAs/ DRUs will be current.

2-5. Master Project Folders. A master project folder will be maintained for each inspection effort. This folder will be maintained and disposed of in accordance with AFM 12-50, Disposition of Air Force Documentation.

a. IG will establish and maintain master project folders for their efforts. SG maintains and converts to microfiche their project folders and reports. Each directorate will determine the documents to be filed in these folders. Master project folders will be held until all replies to reports have been received and evaluated. After all action on the inspection report is completed, folders are forwarded to IGF for follow-up. After all follow-up actions are completed, IGF forwards project folders to DAP where folders are converted to microfiche.

b. For efforts by SN, folders will be initiated and maintained by SN.

c. For SE efforts, SE will submit AFISC Forms 50 to EMS to initiate programming of a project visit. EMS will compile the Project Visit Summary, which is the permanent record of the visit. After completion of the visit, the results will be reported on AFISC Form 11, Visit/Contact Report. The AFISC Form 11 will be maintained by the OPR division and subsequently disposed of in accordance with AFM 12-50.

2-6. Trusted Agent Procedure. Access to no-notice field effort information will be on a strict need-to-know basis and documents pertaining to planning or programming such efforts will be marked "Trusted Agent Information." During duty hours, Trusted Agent Information documents will not be left unattended; during nonduty hours, such material will be stored in safes or locked filing cabinets. Trusted Agent Information material will be transmitted under the cover of AFISC Form 2, Cover Sheet for Trusted Agent Information. When handcarried, Trusted Agent material will be handed directly to recipients. If the material must be mailed, it will be placed in a sealed envelope marked "Trusted Agent Information" and an outer envelope will be used to show address/routing. Trusted Agent Information will be disposed of in the same manner as classified waste until the need for protection of the information has passed. When Trusted Agent Information designation becomes invalid, material may be handled and disposed of as unclassified correspondence unless the material is otherwise classified. In the case of SN, Trusted Agent Information will not be transmitted electronically (excluding classified message transmission). Instead, base codes will be used in lieu of base names and locations for electronic transmission (i.e., unclassified message, telecopier, word processing equipment transmission, etc.). The INSPECTDIS designation will be used on message transmissions (reference AFR 100-20, Management of Electrical Record Messages and MINIMIZE, paragraph 3-12).

CHAPTER 3

PREPARATION FOR FIELD EFFORTS

3-1. Team Chief Responsibilities. A team chief is appointed during the planning and programming cycle and, working from the approved field effort proposal, should begin detailed planning as far in advance of actual team departure as practicable.

a. For field efforts involving a visit by more than one team to a particular location, a primary team chief will be designated as responsible for courtesy calls on the appropriate commander and coordination with the area audit office and AFOSI detachment. This will preclude multiple protocol visits and streamline the information flow to local personnel.

b. For FMIs and SAMIs, the team chief will insure an announcement is prepared for the HQ USAF Daily Staff Digest. Articles will include a brief statement of purpose, scope, and inclusive dates. Articles will be forwarded to CSS for review and processing 7 days after approval of the inspection proposal. Articles will be prepared in accordance with HQ USAF HOI 10-9, The HQ USAF Daily Staff Digest, with these additions:

- (1) Submit original and one yellow coordination copy.
- (2) Type only one article per page.
- (3) Use the inspection effort title and project number for title of article.
- (4) Double space text.

A sample announcement is in attachment 3.

3-2. Preliminary Visits. Personnel may visit MAJCOM/SOA or Air Staff agencies to discuss the nature, purpose, and scope of the effort and related subjects of common interest. Visits should be performed sufficiently in advance of the effort start date to permit incorporation of information obtained into effort planning. AFISC Form 50 will be used to schedule these visits.

3-3. Manning/Augmentation. Field efforts will be manned by in-house resources to the maximum extent possible. Personnel resources for each effort normally will come from within the OPR directorate.

a. When augmentation is required from another directorate, a letter will be sent requesting the required expertise. The request should identify the project, required skill, inclusive dates, and reasons for augmentation. TDY costs for augmenters will normally be charged to the requesting directorate.

b. Augmentation from sources outside AFISC is limited to those instances where critical or highly specialized skills are not available in AFISC. Before selecting an augments, consider the impact of working relations between the individual and the inspected unit. The request for augmentation will be made by the OPR division and forwarded to the OPR director for approval and release. The request should be made 60 days in advance of the field effort. Requests will identify grade, AFSC, inclusive time periods, special qualifications, security clearance, reporting instructions, and point of contact. Augmentation letters for no-notice inspections must not compromise the no-notice aspects of the inspections. Letters of welcome will be provided to augmenters. See attachments 4 and 5 for sample request for augmentation and augments welcome letters.

3-4. Team Member Preparation.

a. Preparation should include a thorough study of all available documents; review of pertinent inspection, safety, General Accounting Office (GAO), and Auditor General reports; interviews with personnel formerly assigned to units being visited; and preliminary visits to units. The well-prepared team member contributes more to the inspection with less effort.

b. As a minimum, team members should familiarize themselves with the organization and personnel of units to be visited, division of responsibilities within their particular areas of interest, and current problems as reported in the HQ USAF Daily Staff Digest, Medical Service Digest, TIG Brief, MAJCOM/SOA IG reports, GAO reports, Auditor General reports, analysis products, and any other available documents. This preliminary study should suggest leads which may become the basis for field activity.

3-5. Special Interest Item (SII) Program. The Special Interest Item program is established by AFR 123-1 and is designed to focus inspector attention on specific problems in Air Force management. Within AFISC, IGX is the focal point for operation of the SII program.

a. SII Proposal Submission. SII proposals can be initiated from any source. The proposal format is contained in attachment 9, AFR 123-1.

(1) Initiating agencies outside AFISC will forward proposals through command channels to AFISC/IGX.

(2) SII proposals originating in the Air Staff will be forwarded through AF/IGI to AFISC/IGX.

(3) SII proposals originating within AFISC will be forwarded through directorate (divisions if originating in IG) channels to IGX.

b. SII Project Monitor Appointment. The Director of Inspection, through IGX, will coordinate with inspection divisions to appoint a project monitor for each proposed SII pertinent to the Directorate of Inspection. The Director of Inspection, through IGX, will coordinate with other AFISC

directorates for appointment of project monitors for proposed SIIs on subjects pertinent to those directorates.

c. SII Proposal Evaluation. Upon receipt of an SII proposal, the appointed project monitor will evaluate it to determine if it should become an SII, be processed as other than an SII, or returned to the originator without further action. SII evaluations should include the following steps and criteria:

(1) Contact with AFISC and Air Staff offices for additional information on the proposed SII subject.

(2) Coordination with AFAA/XPX to ascertain if audits related to the subject are in progress, are planned, or have been recently completed.

(3) SIIs can be used to confirm the existence of a problem and to identify specific deficiencies. They can also be used to confirm the resolution of a problem and document how this was achieved.

(4) SIIs should not be used to force compliance with established directives. They should not be used to establish policy or procedure or to change provisions of published directives.

(5) Directives governing areas under SII consideration should be in the field at least 6 months, and preferably 1 year prior to SII initiation.

(6) Consider use of alternatives in lieu of the SII process. Some of these are:

(a) Will a planned or ongoing USAF IG inspection or AFAA audit address the proposed SII subject?

(b) Have recent MAJCOM/SOA inspections or SIIs addressed the proposed SII subject?

(c) Can the problem be addressed by direct communication from the Air Staff OPR?

(d) Could a TIG Brief article serve the purpose?

(7) As a measure of merit, a proposed SII should define a known or suspected problem that has a significant, adverse impact on the Air Force mission.

(8) In scope, the proposed SII must affect more than one MAJCOM/SOA. Project monitors should also determine which MAJCOMs/ SOAs, including ANG and AFRES, should accomplish the SII.

(9) The evaluation must include a determination of the method of data collection best suited to the purpose of the SII. The alternatives are:

(a) One-Time Survey. If the issue involves a functional area which is routinely inspected by most MAJCOMs/ SOAs, AFISC may request that appropriate MAJCOM/SOA inspectors evaluate status of the proposed SII subject based on past inspection efforts.

(b) One-Time Sample. If the issue is in an area which is not routinely inspected by most MAJCOMs/SOAs or the extent of the problem is unknown, AFISC may ask inspectors to run a checklist on the next appropriate inspection.

(c) Limited Scope SII. If the results of a survey or sample indicate a problem in several MAJCOMs/SOAs or more data are required, a limited scope SII may be directed. The scope may be limited in time, in number of inspections, or in number of MAJCOMs/ SOAs involved. No more than three limited scope SIIs will apply to an individual MAJCOM/SOA.

(d) ALMAJCOM/SOA SII. If the issue or problem is pervasive or of major importance to all MAJCOMs/SOAs, an ALMAJCOM/SOA SII may be conducted upon TIG approval. The time period may be up to a year; however, the SII may be terminated early if its objectives are achieved. No more than five ALMAJCOM/SOA SIIs will be in effect at any time.

d. Evaluation and Review. Upon completion of the evaluation and before taking further action, the project monitor will arrange a meeting with the Director of Inspection and IGX to review the proposed SII and recommended actions. The meeting will be informal; no prepared briefings will be necessary.

e. Recommended Action Preparation and Processing. After evaluation of a proposed SII is completed, the project monitor will prepare a recommendation to AF/IG.

(1) The recommendation package will consist of:

(a) Staff Summary Sheet showing proposed coordinating agencies within the Air Staff, purpose of SII, and rationale for approval or disapproval of proposal.

(b) Proposed SII with inspection guide.

(c) Background and support material.

(d) Yellow coordination copy of Staff Summary Sheet will contain AFISC and AF/IG coordination listing, AF/IG staff agencies not on Staff Summary Sheet, and memorandum for record giving pertinent information for implementation or denial of proposal.

(2) If disapproval of the SII proposal is recommended, the Staff Summary Sheet will give rationale, and the package will include a letter to the SII originator for AF/IG signature. The inspection guide/checklist need not be finalized. Suggested coordination on yellow copy of Staff Summary Sheet is project monitor, branch, division, directorate (if other than IG), AFAA/XP, IGE, CCR, CCG, IG, CS, and AF/IG staff (normally AF/IGI and AF/IGE). Suggested coordination on Staff Summary Sheet (top) is AF/IGD (Coord) and AF/IG (Sig).

(3) If approval of the SII is recommended, the project monitor will:

(a) Obtain an SII number from IGX.

(b) Finalize construction of SII proposal. Proposal should clearly define the problem and furnish background information of sufficient scope and depth to provide inspectors a perspective and foundation from which to begin an evaluation of the subject. A list of questions to be used as an Inspection Guide must be included in checklist form with each proposal. Inspection Guide must be as brief and concise as possible.

(c) Assemble recommendation package (see paragraph 3-5e(1)). Suggested coordination on yellow copy of Staff Summary Sheet is the same as for disapproval recommendation. Suggested coordination for Staff Summary Sheet is AF/IGD, originator of SII proposal if outside AFISC, appropriate Air Staff agencies including AF/RE and NGB/CF (CCR and CCG will advise on applicability to Guard and Reserve), and AF/IG for approval.

(d) AF/IGI will handle required Air Staff coordination, to include NGB/CF and AF/RE, and forward proposal to AF/IG for action.

(e) If AF/IG disapproves the SII, the project monitor will prepare a reply to the SII originating agency for AF/IG signature. Disapproved proposals may be sent to MAJCOMs/SOAs for consideration in their SII programs.

(f) If AF/IG approves the SII, AF/IGI will return the SII package to AFISC/IGX. IGX will prepare the final coordination package, including the SII cover letter for CC signature. After CC signature, IGX will publish and distribute the SII and coordinate this action with the project monitor.

f. SII Implementation. After the SII is distributed, the project monitor is responsible for gathering data from the MAJCOMs/SOAs implementing the SII (see attachment 9, AFR 123-1). Project monitors may contact MAJCOM/SOA inspector general offices to check progress, insure coverage, or to assess the possibility of earlier than planned closeout of the SII.

g. SII Closeout. Unless stated otherwise, SIIs will expire on the date indicated on the SII. Closeout may be earlier or later if considered appropriate by the project monitor and coordinated with IGX.

(1) The project monitor is responsible for compiling all inputs resulting from the SII and for preparing the final report summarizing results.

(2) Format for final report will be at the discretion of the project monitor. It can be a message, letter, or report. The format will depend on the scope of the SII and the inputs received.

(3) Report will be sent to the office originating SII proposal.

(4) IGX will be provided a copy of the final report for the master SII file.

3-6. Inspection Notification Procedures. Normally, inspection notification will be accomplished by microfiche. If a letter is used, it will be prepared by the team, signed at directorate level, and sent to the MAJCOMS to be inspected. A letter or message will normally be used for notification to SOAs, contractors, other services, and Air Staff DCSs, since these organizations do not receive the microfiche inspection schedule. Such letters or messages of notification may also be used to request data pertinent to the planned effort.

a. For prior-notice efforts, all MAJCOMS, AFRES, and NGB/CF will be furnished the microfiche notification which is updated weekly and sent to the MAJCOM IG. In those instances when notification time is less than 15 days, a message to the MAJCOM IG, with a copy to the unit to be inspected, should be used.

b. For no-notice efforts, a letter will be handcarried by the team chief for delivery to the commander of the unit to be inspected. The MAJCOM IG should be notified within 2 hours after arrival at the base.

c. For visits to contractor facilities, the provisions of AFR 11-12, Correspondence with and Visits to Contractor Facilities; AFR 205-4, Air Force Participation in the DOD Industrial Security Program; DOD 4105.59H, DOD Directory of Contract Administration Services Components; DOD 5220.22R, Industrial Security Regulation; and Defense Acquisition Regulations will be followed. Prior to visiting industrial facilities, each inspector will read AFP 70-1, Do's and Don'ts of Air Force Industry Relations.

d. For an OTSI, notification will normally be by letter or message. It will be prepared by either the Readiness Inspection Division (IGQ), Support Inspection Division (IGA), or Inspection Division (SNI), signed by the appropriate director/deputy director, and mailed or transmitted to the MAJCOM IG. (See paragraph 2-6 for Trusted Agent procedures.)

(1) MAJCOM IGs will normally be notified approximately 30 days in advance.

(2) When notification time is less than 15 days, a telecon will be made with a message followup.

(3) The MAJCOM IG will notify the inspected unit of AFISC IG/SN team arrival and support requirements.

e. For visits to Air Reserve Forces (ARF) units, appropriate ANG/AFRES directives must be reviewed.

(1) For ARF-prior notice efforts/visits, the microfiche notification procedure will be used. When possible, NGB and AF/RE-HQ AFRES (as appropriate) will be visited to obtain current information and policies prior to any inspection/visit.

(2) For no-notice inspections of ARF units, the normal notification procedure will apply; however, NGB/CF or AF/RE and HQ AFRES will be notified within the first 2 hours after arrival of the team at the base. Coordination will be made with CCR and CCG prior to any ARF inspection or safety project visit.

3-7. Predeparture Briefings. Predeparture briefings on all OTSIs, FMIs, MEIs, and SAMIs will be offered to the Commander. Arrangements for IG predeparture briefings will be made through the Directorate Executive Officer (IGE). For SN efforts, the team chief will brief the Director of Nuclear Surety.

3-8. Transportation and Travel Management.

a. LGT is the central office for coordinating AFISC CONUS military airlift transportation requirements. Military airlift will be used whenever practical. LGT will validate airlift requirements, assign priorities, forward requirements to HQ MAC, receive planned airlift from HQ MAC, and relay airlift information.

b. When the AFISC Form 50 is approved and entered into the computer, an AFISC Form 51 must be submitted to LGT requesting military airlift support. The information on the AFISC Form 51 will include date of travel (to and from), earliest acceptable time of departure, and latest acceptable time of arrival at destination. Please provide windows as wide as possible on departure/arrival dates and times to enhance the possibility of airlift support; however, windows provided should permit use of scheduled commercial transportation in case military airlift is denied or cancelled. Also, where/when practical, schedule small team travel (six or less) to coincide with AFISC or known general officer travel on MAC T-39 aircraft. This, too, will enhance the possibility of military airlift support. Requests for urgent, short-notice travel can be made by contacting LGT directly. For Monday departures from home station, enter in the remarks section if Sunday travel is acceptable; for Friday returns, enter if Saturday travel is acceptable. If departure/arrival times are not designated, LGT will submit requests using the following standard windows:

(1) Depart home station not-earlier-than 0600L and arrive at destination not-later-than 1900L.

(2) All returns to home station will be requested for a not-earlier-than 1300L departure from TDY location and a not-later-than 2100L arrival at home station.

(3) For travel between TDY locations, a not-earlier-than 1300L departure and a not-later-than 2100L arrival will be requested.

Complete instructions for preparing AFISC Form 51 are contained on reverse of form.

c. The individual or team travel coordinator will contact the nearest Traffic Management Office (TMO) to obtain travel requests (TR) and airline reservations. Many commercial airlines offer discounted fares. Travelers are encouraged to take maximum advantage of such savings. Discounted commercial airline tickets can be purchased when travel arrangements are known. Military airlift support must still be requested, however, and will take precedence unless the traveler's directorate can justify that commercial arrangements are more advantageous to the government.

d. For teams of six or less, individuals and team travel coordinators will contact LGT, extension 6238/4358, for confirmation of military airlift support not-earlier-than 48 hours or later than 1/2 workday prior to the requested transportation date.

e. Travel requirements for teams of seven or more must be mailed by LGT and received by the MAC Team Airlift Branch (DOOFT) 45 days prior to the month of travel. It is imperative that travel requirements be identified and coordinated to reach LGT 60 days prior to the month of travel. Team travel coordinators will be notified by LGT when their requirements will be satisfied by the consolidated airlift program. Notification of support/nonsupport will be provided 30 days prior to operating month.

f. All passengers must report in sufficient time to enable orderly processing and aircraft loading.

(1) Showtime for all operational support airlift flights is not-later-than 1 hour prior to scheduled departure.

(2) On MAC channel and commercial contract flights, the normal reporting time is 1 1/2 hours before scheduled takeoff time.

g. Baggage Restriction. All passengers on T-39 flights are limited to 30 pounds of baggage unless specifically authorized more by MAC/DOOF. Individuals must inform LGT of excess requirement when submitting the transportation request.

h. If administrative airlift has been requested (AFISC Form 51) in conjunction with field effort(s) and changes in itinerary or team composition occur, the responsible directorate (office/individual) must immediately notify LGT, who will coordinate the change with the agency providing the airlift support.

3-9. Overseas Travel Requirements. When travel outside the continental limits of the United States is required, the team chief or designated representative must:

a. Research the USAF Foreign Clearance Guide (available in the AFISC Library) and initiate requests for theater and/or attache clearances as specified. Research should be accomplished as far in advance as possible because of prior notification requirements (approximately 40 days) and administrative processing time (approximately 20 days).

b. Determine, through coordination with the Office of Administration (DA), whether duty and travel restrictions apply to any team member. (See Chapter 9, AFR 205-32, USAF Personnel Security Program.)

c. Contact 63 APS, Passenger Movement Section, for reservations, up to 90 days prior to overseas travel.

d. Travelers should contact the local passenger section to confirm intratheater connections upon arrival at the overseas aerial port.

e. Brief team members on information pertaining to:

(1) Identification requirements, including passports and visas. (Remember, requirements differ for civilian inspectors.) The provisions of AFM 30-4, Passports, will be followed in obtaining passports. (Individuals are cautioned not to contact the Passport Office, Department of State, or embassies concerning status of passports or visas, since HQ USAF has directed use of proper channels.) AFISC Office of Personnel (DP) should be contacted for guidance on passport application procedures.

(2) Diplomatic clearance requirements.

(3) Immunization requirements.

(4) Clothing and currency restrictions.

(5) Customs regulations.

(6) Health precautions.

(7) International drivers license, if required.

(8) Terrorist threat IAW AFR 124-5, Protection of Air Force Personnel Abroad from Acts of Terrorism, paragraph 6. (Briefing assistance may be requested from local AFOSI.) Prior to traveling, all team members should read AFP 30-10, Security Precautions for Air Force Personnel Traveling Abroad.

f. Authorization for excess baggage, when required, will be entered in TDY orders in accordance with AFR 10-7, Administrative Orders, paragraph 2-30.

3-10. Travel Orders.

a. Directorates will initiate special orders for field efforts using instructions contained in AFR 10-7/AFISC Sup 1, Administrative Orders. Directorates will insure cost estimates are recorded in Item 14, DD Form 1610, Request and Authorization for TDY Travel of DOD Personnel, in the appropriate block which corresponds to Element of Expense Investment Code (EEIC). In addition, the fund citation listed in Item 19 will be initialed by the responsible center/cost center (RC/CC) manager or designated representative to indicate fund availability.

b. Blanket TDY Orders will normally be used for field efforts by general officers and inspectors/travelers as determined by AFR 10-7/AFISC Sup 1. Directorate/division executives must monitor blanket TDY orders to insure they are used properly. If DD Form 1610 is issued, do not use blanket TDY orders in its place to obtain commercial transportation or to collect advance travel funds. RC/CC managers, division executives, or designated representatives will annotate sufficient copies of the blanket orders for use by travelers. Annotation of these orders will consist of the following:

- (1) Date of departure.
- (2) Length of TDY.
- (3) Field locations.
- (4) Project number.
- (5) Cost estimates.
- (6) Directorate/division control number or trip number.
- (7) IC number (provided by ACB each quarter).
- (8) Special authorizations (indorsement) approved IAW AFR 10-7/AFISC Sup 1.

c. Annotated blanket orders are distributed as follows:

- (1) One copy to DA when order is indorsed - to include special authorizations.
- (2) One copy to Office of Budget (ACB) for transmittal to Accounting and Finance Office (AFO) prior to commitment of funds (advances/ticket purchases).
- (3) Three copies to AFO when requesting travel advances.
- (4) Three copies to TMO when requesting military transportation authorization (MTA) or government transportation request (GTR).

- (5) Two copies to AFO when submitting travel vouchers for payment.

3-11. Special Entry Authority Lists. Lists will be developed by the team and sent to the appropriate activities. The requirement for access lists should be determined by the team project officer and unit project officers during the planning phase of the field effort.

3-12. Departure Procedures.

a. Team chiefs may grant time off prior to team departure if circumstances permit.

b. Change of duty status will be registered with HQ Squadron Section Orderly Room (CCQ) only when travel is performed outside the CONUS or attending a school or training course.

(1) Military personnel going TDY to overseas locations or any school will sign out providing CCQ (Room 318, Ext 7943) with two copies of the TDY order and date of departure before or upon departure. Sign in, providing the TDY order number and date of return to CCQ, not-later-than 0900 on the first duty day following day of return.

(2) When TDY orders pertain to more than one individual and they have different departure/return dates, CCQ personnel must be so informed.

(3) The Director of Nuclear Surety will establish appropriate departure procedures for SN.

CHAPTER 4

CONDUCT OF FIELD EFFORT

4-1. General. The field phase must be professionally conducted in a manner that evokes cooperation, reflects credit on the Air Force inspection system, and promotes a more effective Air Force. Data gathering must be accomplished objectively, impartially, and factually. Personal prejudices and emotions must not temper evaluations.

4-2. Arrival Procedures.

a. On arrival of the team at each base or activity, the team chief will:

(1) Report to the commander or the commander's representative and discuss the purpose of the visit. If applicable, the local IG/Safety/Medical staff will be contacted to obtain information pertaining to the field effort and support for the effort. Briefings will be arranged through the IG/Safety/ Medical office.

(2) Contact the area audit office and AFOSI office to discuss the purpose of the visit and exchange information pertaining to the field effort.

(3) If the inspected unit is a tenant organization, the team chief will make a courtesy call on the host base commander. Higher headquarters organizations located on the same base should also be notified of the team's presence.

b. At the initial meeting, the unit or activity being inspected will normally present a briefing or provide information previously requested. The team chief will present a short entrance briefing and solicit requests for examination of particular problem areas. In order that individual team members may proceed immediately to their assigned areas of responsibility, the names and locations of functional counterparts within the unit should be determined at this time. Some team members may not attend the briefing because of requirements to start working immediately. The administrative requirements of the team, such as transportation, office space, supplies, and stenographic assistance, should also be amplified during this meeting.

4-3. Field Effort Activity. The actual effort should get underway as promptly as possible and should be conducted with a minimum of disruption to unit activities, consistent with the purpose of the inspection.

a. Inspectors will review the function being inspected to determine if it is accomplishing the desired results. If it is not, the reason must be identified and the causes of failure isolated. The next step is to ascertain if the function is being done as efficiently as possible. If not, the same process of searching out the real problem should be followed. The last AFISCR steps are to determine what activities being accomplished are

not essential to successful and efficient mission accomplishment, and recommend their modification or elimination. Inspectors will identify exceptionally good practices or procedures and innovative techniques for crossfeed to other units or functions. Outstanding results will be the subject of laudatory comment in the report. AFISC Form 283, Finding Work Sheet, may be used to develop and record findings during inspections.

b. Upon completion of the effort at each unit, function, or activity, findings must be discussed and validated with responsible officials including commanders and senior staff officers, when feasible, to discuss the facts documented and the recommendations, if any, developed for corrective action.

c. As the inspection progresses both horizontally and vertically through the unit, function, or activity being inspected, inspectors will expand their search to identify basic causes of deficiencies, the level at which responsibility for correction should be placed, and the action necessary to correct the problem.

d. Where appropriate, photographs may be used to document specific conditions. Photographic slides provide an effective means for illustrating, emphasizing, and recording deficiencies.

4-4. Team Chief Responsibilities.

a. The team chief will keep the OPR division chief advised of the exact location of the team at all times. EMS will be advised of any circumstances which may cause changes in the planned team itinerary or transportation. During inspections, the team chief must make telephone reports to the OPR division chief/director as required.

b. The team chief must plan for the principal events during the field phase of the effort, such as introductory briefings, team meetings, deadline for draft findings, deadline for finding review material, and schedule for departure activities.

c. An informal schedule of each member's daily activities should be maintained to provide for an orderly accomplishment of daily tasks.

d. Sometimes, during the course of a field effort, it may be necessary for a team chief to unilaterally suspend team activities and either remain at that location for a short period of time or request return transportation to home station. A change in DEFCON status, alerting for deployment, or other unusual events affecting the local unit, normally is the basis for this action. In such instances, the team chief will make the decision and notify the OPR division when such decisions are made.

e. The team chief will normally assemble all team members daily to discuss observed irregularities and deficiencies, to identify leads for

further inquiry, and to crossfeed information among team members. Findings being developed will be reviewed to gain early familiarity with problems and to insure that adequate supporting data or documents have been assembled.

f. A field memorandum report must be prepared for each Air Force location inspected except for HQ USAF, MAJCOM/SOA headquarters, and intermediate command headquarters. This requirement does not apply to OTSIs and MEI-type inspections. A copy of each field memorandum will be forwarded to each of the higher headquarters concerned, up to and including MAJCOM/IG. If a field memorandum is prepared, the following statement will be typed or stamped on the cover or first page. "This is a privileged document not releasable in whole or in part to persons or agencies outside the Air Force without the express approval of the Secretary of the Air Force."

g. As findings are developed, team chiefs may determine that a change in itinerary is required. Requests for changes in itinerary will be immediately telephoned to the OPR division for action. The OPR division will coordinate the proposed itinerary change with EMS. Changes in itinerary causing postponement or cancellation of other efforts will be forwarded to the OPR director for final approval.

h. When the size and scope of the effort involve several subteams, team chiefs will summarize and crossfeed tentative findings to each other periodically by telephone or electrical means. This is necessary to confirm suspected deficiencies, extend the scope of a finding sample, and develop the final report.

i. Occasionally, the team chief or team members will be approached by personnel having complaints. Complaints are processed in accordance with AFR 123-11, The Inspector General Complaint System, and are not normally handled by AFISC teams. The team must exercise discretion and tact in referring complaints to the proper authority. If the complainant insists, accept the complaint in writing and forward to AFISC/IC (Inquiries and Complaints).

j. The team chief must insure crossfeed of information with local AF/A and OSI offices at each installation inspected. The crossfeed should include discussion of possible irregularities or criminal activities noted by inspectors (for example, suspected fraud or collusion in any area) and possible inspection information available from AF/A and OSI sources.

k. The team chief should insure that every inspector, as part of his/her review of the effectiveness of management systems/ functions, is alert to irregularities that have the potential for fraud, waste, or abuse. All incidents of poor management, neglect, lax controls, or noncompliance with directives should be considered as possible areas for fraud, waste, or abuse. Coordination by inspectors with the local audit agency and AFOSI representatives should determine if there are ongoing audits or investigations that have an impact on their inspection. Such coordination should provide an AFISCR exchange of information that assists the inspector

to be more alert to irregularities. Inspectors should report all suspected incidents to their team chief.

4-5. Interim Finding Review (IFR). Near the midpoint of the inspection, except for OTSIs/LNSIs and single unit MEI-type inspections, the team chief will schedule an IFR. The purpose of the IFR is to measure progress, determine if basic problems have been identified, and redirect the effort as necessary. The IFR will be attended by the Commander, the appropriate director, and all team members present. Attachment 6 is a checklist for IFRs.

4-6. TIG, Deputy IG, DIGIS, or Director Field Visits. If senior personnel visit teams in the field, the team chief should take the following actions:

a. When the effort is being conducted at a military installation, the team chief will notify appropriate base personnel of the visitor's estimated time of arrival and type of aircraft. Team chief will confirm local transportation and quarters reservations and will meet or designate a member of the team to meet the visitor. When government quarters are not used by the team, reservations will usually be made for the visitor at the same hotel or motel occupied by the team unless the visitor specifies otherwise.

b. During the visit, the team chief will informally brief the visitor on the status of the effort to date, problems associated with the effort, and specific examples of deficiencies identified on the installation visited.

4-7. Administrative Procedures.

a. Uniform. The uniform for team members in the field will be the locally prescribed uniform of the unit or activity being visited. When the unit is operating/exercising under field conditions, team members will normally wear service uniform combinations rather than utility uniforms. During over-the-shoulder inspections, team members will normally wear the uniform being worn by the MAJCOM/SOA/DRU IG team being inspected. When briefing a general officer, the briefer will wear the combination 1 uniform. AFR 35-10, Dress and Personal Appearance of Air Force Personnel, will apply at all times.

b. Quarters. Government quarters will be used to the maximum extent practicable.

c. Washington DC Procedures. With the exception of SN, AFISC personnel on TDY in the Washington DC area will inform the Office of Inspection (AF/IGI) (Room 5D286, Pentagon, Ext 71061 or 71955) of their presence. SN personnel will inform the Office of Safety and Nuclear Surety (AF/IGF) (Room 5D273, Pentagon, Ext 75119 or 77050) of their presence. Information should be provided on the purpose and length of visit, on- and off-duty contact points, and proposed departure date. If Air Staff agencies are to be contacted, the subjects to be discussed will also be provided. Prior to departure, the team chief will advise AF/IGI or IGF of departure plans, arrange for any briefings desired by TIG, and determine if TIG has any additional requirements.

d. Notification of Return of Team to Home Station. The team chief should notify the OPR division executive of the estimated arrival time at the home station. The OPR division should insure local transportation is arranged and families are notified.

CHAPTER 5

OTHER FIELD EFFORT RELATED ACTIVITIES

5-1. Post Field Effort Briefings. These briefings will be presented to senior Air Staff and MAJCOM managers before the report has been finalized. Instructions for preparing briefings are contained in Chapter 6.

5-2. Field Effort Review Process. The results of IG inspections will be briefed to the Commander at Final Finding Reviews (FFRs). FFRs on IG inspections will also be presented to TIG as detailed in IGOI 120-1, Operations and Procedures.

An FFR will occur prior to releasing the final report. Normally, the team chief will brief the results. This review will insure that the inspection objectives have been met, that findings and issues are significant, and that causes are identified and well defined. The report objective will be identified. Specific guidance will be provided the team chief in tailoring the requirements for briefings to senior Air Staff and MAJCOM managers. The Commander, the appropriate director, and all team members will be present. Attachment 7 is a checklist for FFRs. SN efforts will normally be briefed only to the Director of Nuclear Surety; however, major problems discovered will be reported to the Commander immediately after the Director of Nuclear Surety is briefed.

5-3. Report Preparation. The report will be written as soon as practical after completion of the field effort. IG policy is to publish reports within 30 days after the FFR is presented to the Commander. Chapter 6 contains detailed information on report preparation.

5-4. Trip Report.

a. All TDY efforts warrant preparing a report for the OPR director. When a formal report is not required, AFISC Form 11, Visit/Contact Report, will be used to record all field efforts (see AFISCR 10-9, Reports and Records). These are to be submitted within 10 working days.

b. AFISC Form 11 normally will not be transmitted outside AFISC. If there is a requirement to advise other agencies of the content of the report, a separate letter should be prepared. Directorates will determine appropriate distribution.

5-5. Special Interest Items (SII). Findings resulting from examination of SIIs will be included in the body of the report if they are related to the purpose and scope of the inspection. Refer to paragraph 3-5 for SII program details.

5-6. TIG Brief. Information gained during field efforts should be reviewed for possible inclusion in TIG Brief. This publication provides authoritative guidance and information to commanders, inspector generals, inspectors, and other Air Force managers. It is published every 2 weeks and

is distributed to squadron/detachment level Air Force-wide. Further details on this publication are contained in HQ USAF HOI 120-1, The Inspector General's Brief.

a. Within AFISC, CSS will act as the focal point for all AFISC inputs to TIG Brief and maintain liaison with the editor. Directorates will insure their people are fully aware of the purpose and use of TIG Brief and monitor the timely submission of quality articles. Directorates will provide inputs to TIG Brief in the following quantities each month:

<u>SE</u>	<u>IG</u>	<u>SG</u>	<u>SN</u>
8	12	3	3

b. All proposed TIG Brief articles must be prepared in the format at attachment 8 and should include the original and a yellow copy. CSS may make editorial changes in manuscripts needed to meet AFISC standards without altering the intended meaning. Nongrammatical changes will be coordinated with the author to insure technical accuracy. Further coordination within AFISC is the author's responsibility. CSS will forward proposed articles to Editor, TIG Brief.

c. CSS will monitor status of all articles submitted to the editor. Articles not published because of Air Staff rejection will be returned to the author who may contact the Air Staff agency to arbitrate. Corrected articles will be resubmitted unless both the author and the Air Staff agency agree the article should not be published. If there is no agreement, the article should be resubmitted with appropriate justification.

d. Articles submitted from the field for publication in TIG Brief will be coordinated with the appropriate AFISC directorate OPR. The OPR will provide CSS with concurrence or the reason why the article should not be published.

5-7. Administrative Actions.

a. TDY vouchers will be submitted within 5 work days after return to home station.

b. Time off after return from a field effort will be determined by the OPR division/branch chief commensurate with duties required to prepare the report, briefings, and other items associated with the effort. The team chief should make a recommendation to the OPR division/branch chief since he is the one responsible for timely preparation of the reports, briefings, and other items associated with the effort. The team chief also has firsthand knowledge of how demanding the field effort was in terms of consecutive days worked, length of work days, etc.

c. Letters of evaluation (LOE) and appreciation for augmenters will be prepared when appropriate. Guidance for preparing LOEs is contained in AFR 36-10, Officer Evaluations, and AFR 39-62, Noncommissioned Officer and Airman Performance Reports. Letters of appreciation may be submitted for civilians.

CHAPTER 6

REPORTS AND BRIEFINGS

6-1. Reports. Inspection reports require special emphasis. They receive the attention of many senior commanders and staff personnel and may be reviewed by CSAF and SAF. They will be carefully prepared and given the most critical review possible.

6-2. Privileged Nature of Reports.

a. All inspection reports, including field memorandum reports, will contain the following statement: "This is a Privileged Document not releasable in whole or in part to persons or agencies outside the Air Force without the express approval of the Secretary of the Air Force." This statement will be typed or stamped on the cover and first page of each copy of the report. Electrically transmitted reports will contain the statement: "PRIVILEGED DOCUMENT - REF AFR 123-1."

b. When TIG authorizes the release of an unclassified statement of fact from a report to a member of the general public, AFR 12-30, Disclosure of Air Force Records to the Public, will apply. "OFFICIAL USE ONLY" markings will be used only as prescribed in AFR 12-31, Use and Protection of For Official Use Only Information.

c. When circumstances indicate that a report should be identified other than as indicated above, the matter should be referred to the Commander through the appropriate director for determination prior to publication of the report.

6-3. Classification of Reports. The following policies apply:

- a. When possible, reports will be unclassified.
- b. If there are few classified findings, they may be referred to in the basic report and published as a separate classified supplement.
- c. When the number of classified findings or the sensitivity of the contents in general so requires, the originator may classify the entire report.

d. The classification of reports will be in accordance with DOD 5200.1-R/AFR 205-1, Information Security Program Regulation. Each page of a classified report must be accounted for. For example, if Part I of a report ends on page 5 and Part II starts on page 7, page 6 must be numbered and the following statement typed on the page: "THIS PAGE INTENTIONALLY LEFT BLANK."

6-4. Report Preparation.

a. Grammar and composition require continuing attention to insure acceptable reports. Corrections should normally be made for clarity, sub-

stance, grammar, organization, and composition. When corrections are made, insure the meaning of the statements is not changed.

b. Judgment must be exercised in the use of tenses in reporting and substantiating findings. The past tense is generally appropriate when documenting a deficiency. The present tense may be used in reporting favorable findings.

c. When corrective action has been initiated prior to publication of the report, the report will acknowledge this.

d. Abbreviations and acronyms should be avoided except for the most common abbreviations listed in APM 11-2, Air Force Manual of Abbreviations. If they are repeated many times in the report, they will be spelled out when they first appear in major subdivisions of the report. Abbreviations that are little known or rarely used should be avoided. Remember that the reader may not be familiar with the technical jargon of a particular functional area.

6-5. Transmittal of Reports Outside the USAF.

a. Reports of inspections, investigations, and inquiries (including related documents) are privileged documents. Their disposition will be controlled to insure that they are not released in whole or in part to persons or agencies outside the Air Force without the express approval of the SAF (AFR 123-1, paragraph 1-6).

b. Release of privileged information requires, as a minimum, a determination of the propriety of disclosure by TIG prior to referral to SAF. Because of the wide range of situations which may develop from release of privileged information, each request will be examined on its own merit. All responses to requests for privileged or official information will be coordinated with the Office of Administration (DA) and the Legal Advisor (JA) and referred to the Commander for determination prior to referral to TIG.

c. Certain information may be released or withheld from public disclosure under provisions of AFR 12-30, Disclosure of Air Force Records to the Public. All such requests for information will be processed under Freedom of Information Act procedures (See AFR 12-30/ AFISC Sup 1).

d. Procedures for release of information concerning USAF aircraft, missile, and nuclear accidents and incidents are stated in AFR 127-4, Investigating and Reporting US Air Force Mishaps.

6-6. Briefings to Chief/Vice Chief of Staff.

a. Briefings to the Chief/Vice Chief of Staff should not exceed 15 minutes. Where a longer time is allocated, the briefer should tailor the briefing to last approximately 10 minutes less than the allocated time. For example, if the CSAF has allocated 30 minutes, limit the briefing to 20 minutes in order to leave time for discussion.

b. Avoid acronyms. Remember that your listeners may not be as familiar with acronyms as you are.

c. Do not mention the security classification of the briefing. It should be shown on the first viewgraph or first page of a flip chart; that is enough.

d. In speaking of deputates, terms such as XO, AC, LE, etc., are acceptable. For directorate or other staff offices below deputate level, use the title. For example, AF/LEY should be referred to as the Directorate of Maintenance and Supply.

e. Unless absolutely necessary, the briefer and the AFISC general officer will be the only AFISC representatives attending CSAF briefings. Backup specialists, if used at all, will be held to a minimum. TIG will introduce the speaker and the subject. The briefer should not reintroduce himself, and in most cases, need not reintroduce the subject.

f. When showing viewgraphs listing the locations visited, simply indicate that during the course of the inspection these were the locations visited. Wait for a signal to proceed and then go on to the next viewgraph.

g. Brief "around the chart." Do not read the words that are being shown.

h. Respond to questions in a professional manner. Be sure the question is understood, then give a concise answer. If you cannot provide the answer, state you will obtain the information required and provide the answer later.

6-7. Disposition of Briefing Scripts and Visual Aids.

a. After completing formal briefings, the team chief will insure that a copy of each of the following briefing scripts is included in the project folder:

- (1) Exit briefings at unit, intermediate, and MAJCOM level.
- (2) Briefing to TIG.
- (3) Briefing to the Air Staff.
- (4) Briefing to the CSAF or the SAF.

b. Visual aids will be retained by the OPR division and may be disposed of in accordance with AFM 12-50, Disposition of Air Force Documentation, after completing the inspection.

OFFICIAL

GERALD D. LARSON
Major General, USAF
Commander

MOZELL PAYTON JR., Captain, USAF
Chief of Administration

SUMMARY OF CHANGES

Generally revises text throughout and changes office symbols to agree with the reorganization which changed functional responsibilities within the Office of Management Support (EM); Deletes trusted agent designation procedures and lists (para 2-6); deletes program information displays (para 2-8); deletes reference to the Air Force Audit Agency library (para 3-4b); adds discussion of fraud, waste, and abuse program (para 1-4d); adds fraud, waste, and abuse prevention/detection to team chief responsibilities (para 4-4k).

TIG SCHEDULE DATA (and Privacy Act Statement on reverse side before Completing.)			PROJ NO. 1		TYPE OF EFFORT/TITLE 2					OPR 3		DATE 4		
COORDINATION OFFICE NAME DATE 5			REMARKS 6											
ACTION NEW EFFORT DATES ITINERARY TEAM COMP TITLE PURPOSE/SCOPE (600 - 900 Series) NARRATIVE (1000 - 5000 Series) PROJ OFFICER OTHER ENTIRE EFFORT PHASE: CANCEL OTHER SPECIFY			NARRATIVE FOR NON-INSPECTION EFFORTS (1000 - 5000 Series) 7											
			ITINERARY 18											
POINT OF CONTACT NAME 19 OFFICE SYMBOL EXT			BASE	LOCATION	UNIT/ACTIVITY	NO. PERS	ARRIVE	DEPART	PH	EEIC	SP ID	EMS USE BASE CODE PD CODE		
20			1											
			2											
			3											
			4											
			5											
21			6	10	11	12	13	14	15	16	17			
			7											
			8											
			9											
			10											
22			11											
			12											
			13											
			14											
			15											
23			TEAM COMPOSITION 27											
			ACTION	NAME	GRADE	SSAN	TEAM	AUGMENTOR DATA		NON-AFISC FUNDING				
								AFSC	HOME BASE					
			24	25	26									
			28											

AFISCR 120-1
Attachment 1
15 August 1982
A1-1

PRIVACY ACT STATEMENT

Authority: Title 44, U. S. Code 3101 and Title 10, U. S. Code 8032, AFISCR 120.1.

Principle Purpose: The AFISC Form 50 is the primary source document for capturing inspection/visit information into the computer. Use of SSAN is necessary to make positive identification of the individual.

Routine Uses: The form provides the necessary data base to update and produce numerous recurring products concerning itineraries, dates of visitation, conflict detection, team compositions, personnel status, mandatory accounting, and other related current and historical bi products.

Disclosure: Mandatory. If data is not provided, the required programming process could not be accomplished.

JUSTIFICATION: (Reason for attending/participating, benefit derived, etc.)

ESTIMATED EXPENSE:

TRAVEL	PER DIEM	OTHER	TOTAL
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PN

AFISC FORM 50 CHECKLIST

1. PROJECT NO. - Depends on type of effort. (Separate Form 50 for each effort.)
2. TYPE OF EFFORT/TITLE - This will be determined by purpose of effort. (Example: ORI, MEI, Conference, Meeting)
3. OPR (Office Symbol) - This is the office the man-days will be counted against.
4. DATE - Date prepared.
5. COORDINATION - As required by the individual Directorate.
6. REMARKS - Self-explanatory. (Note: If this effort is in conjunction with an existing effort, please indicate Project Number of that effort.) Please indicate, for Program Review purposes, reason for effort; i.e., inspection, data gathering, validation, briefing, as appropriate. Team members traveling overseas must be briefed on techniques and precautions to counter the terrorist threat, IAW AFR 124-5.
7. NARRATIVE FOR NONINSPECTION EFFORTS - A brief but concise narrative stating the purpose of the effort. Use only those abbreviations established by AFM 11-2. (Note: Only 120 characters, including spaces, will be used.)
8. ACTION - Place "X" where applicable.
9. BASE NO. - Used for split teams.
10. LOCATION - Specify actual geographical location of effort. (Example: L.A. City, Kirtland AFB NM, Pentagon ADM VA, Andrews AFB MD, Bolling AFB DC, etc.)
11. UNIT/ACTIVITY - (Example: 63 ABG, 21 COMPW, Det 1, 12 Comm Gp, etc.)
12. NO. PERSONS - Indicate number of persons at Specific Unit/Location.
13. ARRIVE - Date scheduled to arrive base designated.
14. DEPART - Date scheduled to depart base designated.
15. PHASE - Identify the phase of trip, if applicable.
16. EEIC - Will be determined by purpose of TDY and assigned by Directorate monitor. (Note: This block must be completed.) EEICs:

01 - Formal Training	06 - Inspections
02 - Other Direct Mission Resp	07 - (Not in use)
03 - Accident Investigations	08 - Meetings and Conferences
04 - Safety Action Teams	09 - Other Travel
05 - DOD Support	

17. SP ID - (Special Indicator) Indicate when applicable.
18. BASE AND PD CODE - EMS will insert Base and PD code designator.
19. POINT OF CONTACT - Person to be contacted in the event that EMS has any questions about the effort.
20. EMS USE - Internal use only.
21. BASE NO. (for split team) - This block is used to identify the bases which apply to each individual. For example, if the person is going to bases 1, 3, and 6, list "1,3,6" in this block. If all team members are going to all bases listed, put "ALL" in this block.
22. ACTION - Use an "A" for add and a "D" for delete actions.
23. NAME - Last name, first name, and middle initial.
24. GRADE - Use current military rank (Col, MSgt) or civilian grade (GS-12, WB-10) at time AFISC Form 50 is prepared.
25. SSAN - Use nine-digit numeric Social Security Number designator for the individual.
26. TEAM CHIEF - Identify team chief by entering "X."
27. AUGMENTER DATA - When adding an inspector who is not assigned to the Center (augmenter), indicate the base to which assigned and the AFSC of the individual.
28. NON-AFISC FUNDING - If the effort is funded by another command, put an "X" in this block.

1		5		2		6		3		8		4		9		10		11		12		13		14	
IGA - INSPECTION DIVISION						MASTER LISTING OF SCHEDULED EFFORTS MONTH OF MAY 1980						AS CP 1 MAY 80													
PROJ WC		CPR		SHCET TITLE/NARRATIVE		LOCATION		INSI TYPE		UNIT PURPOSE		TEAM CCME		DATE		REVISION		EC		SR		OR		FC	
INCL-DATE																									
790627P		IGAP		ASGN AND UTIL CP AF FEES				FBI		35 TACTICAL FIGHTER WG			1 COL MAURC LOUIS S												
10MAY80	10MAY80			4 GEORGE AFB CAL						USAF TAC FIGHT WPCCE			LTC POPPENGH BURTON H												
10MAY80	16MAY80			4 NELLIS AFB NEV									MAJ LANDCLT JOHN F												
													SMS GRIFFIN WILLARD G												
790627Q		IGAF		ASGN AND UTIL CP AF PERS				FBI		48 TACTICAL FIGHTER WG			2 COL MAURC LOUIS S												
10MAY80	6JUN80			4 LAKENHEATH RAF UKIN						USAF IN SUBCPE			LTC POFFENGA EUSTON H												
6JUN80	10JUN80			4 BAMSTEIN ABS GERM						601 TACTICAL CCNTR			MAJ LANDCLT JOHN F												
10JUN80	16JUN80			4 SEMPACH ABS GERM						36 TACTICAL FIGHTER WG			SMS GRIFFIN WILLARD G												
16JUN80	20JUN80			4 BITBURG ABS GERM						52 TACTICAL FIGHTER WG															
20JUN80	25JUN80			4 SPANGDAULEN ABS GERM																					
800609D		IGAP		ADMIN CAREER STRUCTURE				FBI		JSAP RECRUITING			1 MAJ KCCNIZ GEORGE F												
19MAY80	21MAY80			2 RANDOLPH AFB TEX						AIR TRAINING			A CBS WOLF WALTER E A												
				2 RANDOLPH AFB TEX						AP MNP															
				2 RANDOLPH AFB TEX						US AIR FORCE															
21MAY80	23MAY80			2 PENTAGON ADM VIB																					
800611C		IGAS		SENSE OF MGT FOR WEAF SYS				FBI		COMBAT SUPPORT			1 LTC BASHUSSEN KENNETH B												
9MAY80	14MAY80			4 BAMSTEIN ABS GERM						86 TACTICAL FIGHTER WG			MAJ GREEN RICHARD F												
				4 BAMSTEIN ABS GERM						40 COMBAT SUPPORT			MAJ MARCOTTE RONALD H												
14MAY80	17MAY80			4 AVIANO ABS ITALY						40 SECURITY POLICE			CPT TUCKER GARY I												
				4 AVIANO ABS ITALY						52 TACTICAL FIGHTER WG															
17MAY80	21MAY80			4 SPANGDAULEN ABS GERM						52 SECURITY POLICE															
				4 SPANGDAULEN ABS GERM						USAF IN SUBCPE															
21MAY80	24MAY80			4 BAMSTEIN ABS GERM																					
800613I		IGAC		FUNCTION OF AP CHAELAINS				FBI		CHIEF OF CHAELAINSHQ			1 CCI BOGGS WILLIAM G												
6MAY80	9MAY80			1 BOLLING AFB BELIEF AFB DIC																					
800613J		IGAC		FUNCTION OF AP CHAELAINS				FBI					CCI BOGGS WILLIAM G												
*27MAY80	31MAY80			2 TRAVIS AFB CAL						60 AIR BASE															
*31MAY80	5JUN80			2 MCCORMICK AFB WASH						62 AIR BASE															

AFISCR 120-1

Attachment 2

15 August 1982

A2-1

EFFORT VALIDATION CHECKLIST

Master Listing of Scheduled Efforts received from EMS NLT 10th workday of each month. (Note: Validation will always be for the previous month's travel, i.e., travel performed during the month of September will be validated in October.)

a. Validate listing and note errors that may be reflected in the following areas:

- (1) PROJECT NO. - Insure Project No. assigned the effort in question is reflected.
- (2) OPR - Insure the correct OPR is listed as this is the office charged the man-days.
- (3) TITLE/NARRATIVE - Insure that the narrative clearly states your actual visit purpose.
- (4) INSPECTION TYPE - Insure this is actual type effort being performed. (Example: SAMI, Conference, Course, etc.)
- (5) INCLUSIVE DATE - These dates will include travel time.
- (6) TEAM SIZE - Must coincide with Team Composition (9).
- (7) LOCATION - Self-explanatory.
- (8) UNIT/PURPOSE - Self-explanatory.
- (9) TEAM COMP - Insure personnel listed actually traveled on this effort. (Note: Efforts may include phases, confirm name with appropriate phase.)
- (10) DATE DEVIATION - Will be indicated if member has travel other than inclusive dates specified for that effort.
- (11) EEIC (Expense Element Investment Code) - insure proper EEIC is utilized.
- (12) SP ID (Special Identifier) - Used primarily by SE.
- (13) VP (Visit Purpose) - Used primarily by SE.
- (14) VC (Validation Code) - After annotating/ confirming accuracy of each entry, indicate by using an asterisk.

b. Accurate validation of the above listing is vital in order that man-days be appropriately credited for each effort. In addition, information must be accurately recorded in history for future data-gathering purposes.

STAFF DIGEST INPUT FORMAT

TO: Editor, Daily Digest, AF/DALJ

STAFF DIGEST Item

For Release As Soon As Possible

INSPECTOR GENERAL

FUNCTIONAL MANAGEMENT INSPECTION OF THE PAY INQUIRY AND ENTITLEMENT SYSTEM
UNDER THE JOINT UNIFORM MILITARY PAY SYSTEMS (JUMPS), PN XX-632 (U)

The inspection, to be conducted 1 January-4 May 19XX, will evaluate the system and procedures used by accounting and Finance personnel to investigate and correct pay problems under JUMPS. (AF/IGD, Col Fischer, AUTOVON 876-2728)

REQUEST FOR AUGMENTATION

(Office Symbol)

Personnel Augmentation for (Title of Inspection, PN)

(Air Staff Agency)

1. We would appreciate augmentation assistance from your office to support this inspection scheduled for (dates) (ref AFR 123-1 and HOI 120-5). The purpose, scope, and itinerary are attached. Augmentation is requested during the following periods: (dates)

2. Your assistance is required to supplement our resources in a skill area essential to achieve the objectives of this inspection. It will be appreciated if you can furnish an individual who meets the following criteria:

(Rank, AFSC, and security clearance. Include any other specific requirements.)

3. Please forward the name, rank, SSAN, and security clearance of the selected individual(s) to HQ AFISC/(office symbol), Norton AFB CA 92409, by (15 workday suspense) for inclusion in TDY orders. (Rank/name) has the experience and the background desired for this inspection. Orders will be forwarded to the selected individual(s) subsequent to receipt of your response.

4. The selected individual(s) may contact (rank/name), Norton AFB, AUTOVON 876-XXXX, for further details on inspection preparation and planning.

FOR THE COMMANDER

(Signed at Directorate level) 1 Atch

Cy, PNXX-XXX

Additional information should be requested on augmenters for inspections visiting contractor facilities. Information should include date and place of birth and security clearance, type, date, agency, and badge number.

DISTR: Orig - addressee Green - CS
Yellow - PN_____, Master Project Folder

COORD: Include Br, Div, Exec, Directorate

WELCOME LETTER TO AUGMENTER

(Office Symbol)

(Title of Effort, PN)

(Organization and Office Symbol) (Maj John E. Doe)

1. I am pleased to welcome you as a member of the inspection team to participate in this inspection. You have been selected because of your qualifications in your technical field, and I look forward to working with you on this important effort.

2. Copies of your travel orders are attached. The field phase of the inspection will be (inclusive dates). You should plan to meet the team at (time and location).

3. Any questions pertaining to this inspection should be directed to me or to (name of contact officer), Norton AFB CA, AUTOVON 876-XXXX.

(Team Chief's Signature)

1 Atch
TDY Orders

DISTR: Orig & 2
Orig - addressee
Yellow - PN _____, Master Project Folder

CHECKLIST

INTERIM FINDING REVIEW OF INSPECTION PROGRESS

OVERVIEW OF INSPECTION PROGRESS

- Purpose/Scope
- Team composition
- Organizations inspected/visited
- Talk to major findings—for each one discuss
 - Condition(s) found
 - Basic cause(s) if identified at this point
 - Impact on readiness/effectiveness/economy
 - Recommendation(s)
- Organizations to be visited
- Anticipated problems, unusual situations, etc.
- Target date for travel completion and report publication

HECKLIST

FINAL FINDING REVIEW OF INSPECTION PROGRESS

OVERVIEW OF INSPECTION

- Purpose
- Team composition
- Organizations inspected/visited
- General officers briefed
- Talk to major findings—for each one discuss
 - Condition(s) found
 - Cause(s) of the condition(s)
 - Impact on readiness/effectiveness/economy
 - Recommendation(s)
 - Are there alternative courses of action?
 - Are alternatives realistic, practical, economical?
 - Who should fix the problem?
- Actions remaining
 - Any anticipated problems with validation?
 - Who should be briefed?
 - Target dates for travel completion and report publication.

ADMINISTRATION

HOW TO PREPARE TIG BRIEF ARTICLES--AFISC

TIG Brief articles should be prepared in this format with the suggested section of the magazine indicated in the upper left corner. The title should tell the reader what the article is about.

The article should be brief and concise to save the reader's time. Try to get to the point in the first sentence. Use simple words and succinct sentences.

Facts should speak for themselves. Delete phrases such as "past inspections have revealed," and "during times of decreasing budgets and increasing costs." Use a positive thrust; list "do's" instead of "don'ts" where possible.

Subparagraphs containing a series of points should be typed as follows:

q Indent and begin subparagraphs with the letter "q."

o Sub-subparagraphs should begin with a dot.

q The "q" and dot indicate that some sort of symbol such as a diamond, box, or checkmark should be used to emphasize the series.

Include cause, impact, and recommendations when appropriate. Regulation numbers must be followed by the exact title, in quotes, of the regulation the first time the number is used. End the text with the author's name, office symbol, and AUTOVON number. Below the text, the Air Staff agency or agencies that should coordinate on the article plus one of the following statements should be indicated.

a. Publish in next available issue.

b. Publish by month/year.

c. Not time sensitive.

(Lt Col Hansen, CSS, AUTOVON 876-2061)

Publication Priority: Publish by month/year.

OPR: AF/DAP



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, D.C. 20330

REPLY TO
ATTN OF: LETT

29 February 1984

SUBJECT: AFR 71-4 (Your Ltr, 7 Feb 1984)

TO: AFMSC/SGPA
Brooks AFB TX 78235

1. A change to correct the discrepancy that exists between AFR 71-4 and the recent revisions to 49 Code of Federal Regulations (CFR) for shipment of radioactive material (RAM) is pending publication. Distribution of this change is expected within the next 30 days.
2. This headquarters petitioned for a delay in the mandatory implementation date of Docket No. HM-169 to allow for sufficient time to train personnel and update military regulations to be consistent with 49 CFR for shipment of RAM. This petition was denied.
3. Although every effort is made to keep AFR 71-4 consistent with 49 CFR to avoid frustrated cargo transiting from commercial transportation to military airlift or vice versa, there is no legal requirement for compliance. Military aircraft not engaged in carrying persons or property for commercial purposes are not governed by the provisions of 49 CFR (refer to 49 CFR 175-5). Additionally, DOT exemption 7573 allows use of the provisions of AFR 71-4 for those commercial contracted aircraft used for military purposes.

FOR THE CHIEF OF STAFF

JOHN T. QUIRK, Col, USAF
Chief, Traffic Management Division
Directorate of Transportation

Chapter 12

RADIOACTIVE MATERIALS

12-1. Explanation of Terms:

a. **Radioactive Materials.** Any material or combination of materials which spontaneously emits ionizing radiation. Materials in which the estimated specific activity is not greater than 0.002 microcuries per gram of material, and in which the radioactivity is essentially uniformly distributed, are not considered to be radioactive materials.

b. **Special Form Radioactive Materials.** Those materials which, if released from a package, present some direct radiation hazard, but little hazard due to radiotoxicity and possibility of contamination. To qualify as a special form material, the radioactive material must either be in massive solid form or encapsulated.

c. **Normal Form Radioactive Material.** Those materials which are not special form radioactive materials. Normal Form Radioactive Materials are grouped into Transport Groups.

d. **Transport Group.** Any one of seven groups into which normal form radioactive materials (radionuclides) are classified. Radionuclides are classified in transport groups from I (most restrictive) to VII (least restrictive), according to their radiotoxicity and their relative potential hazard while in transportation.

e. **Transport Index Number.** The number placed on a package to designate the degree of control to be exercised in the transportation cycle. The Transport Index Number must be noted on all copies of the DD Form 1387-2 and DD Form 1348-1. The Transport Index must be determined by subparagraphs (1) or (2) below, whichever is larger. The number expressing the index must be rounded up the next highest tenth (for example, 1.01 becomes 1.1).

(1) The highest radiation dose rate in millirems per hour, at 3 feet from any accessible external surface of the package.

(2) For Fissile Class I packages only, the Transport Index Number is calculated by dividing the number "50" by the number of similar packages which may be transported together as determined by the procedures prescribed by the Nuclear Regulatory Commission Title 10, Code of Federal Regulations, Part 71.

f. **Fissile Radioactive Material.** This term refers to plutonium -238, plutonium -239, plutonium -241, uranium -233, or uranium -235 or any material containing any of these materials.

(1) Uranium -235. Exists only in combination with various percentages of uranium -234 and uranium -238. "Fissile radioactive material" as applied to uranium -235 refers to the amount actually contained in the total quantity of uranium being transported.

(2) Radioactive material. May consist of a mixture of fissile and nonfissile radionuclides.

(a) "Fissile radioactive materials" refers to the amount of materials (see b below) or any combination

thereof actually contained in the mixture.

(b) "Radioactivity" of the mixture consists of the total activity of both the fissile and nonfissile radionuclides.

(3) Fissile Class I. Packages which are transported in unlimited numbers and in any arrangement, and which require no nuclear criticality safety controls during transport.

(4) Fissile Class II. Packages which are transported together in any arrangement, but in numbers which do not exceed an aggregate transport index of 50. For purposes of nuclear criticality safety control, individual packages have a transport index of not less than 0.1 and not more than 10. However, the external radiation levels may require a higher transport index number but not to exceed 10. Such shipments require no nuclear criticality safety control by the shipper during transportation.

(5) Fissile Class III. Shipments of packages which do not meet the requirements of Fissile Classes I or II and which are controlled to provide nuclear criticality safety in transport by special arrangements between the shipper and the carrier.

g. **Type A Packaging.** Packaging designed in accordance with the general packaging requirements for radioactive materials and which is adequate to prevent the loss or dispersal of the radioactive contents and to retain the efficiency of its radiation shielding properties if the package is subject to the tests prescribed in figure 12-3.

h. **Type B Packaging.** Packaging which meets the standards for Type A packaging and in addition, meets the standards for hypothetical accident conditions of transportation as prescribed in figure 12-3.

i. **Low Specific Activity Material.** This term refers to any of the following material:

(1) Uranium or thorium ores and physical or chemical concentration of these ores.

(2) Unirradiated natural or depleted uranium or unirradiated natural thorium.

(3) Tritium oxide in aqueous solutions, provided the concentration does not exceed 5.0 millicuries per milliliter.

(4) Material in which the activity is uniformly distributed and in which the estimated average concentration per gram does not exceed:

(a) 0.0001 millicuries of Transport Group I radionuclides.

(b) 0.005 millicuries of Transport Group II radionuclides.

(c) 0.3 millicuries of Transport Groups III and IV radionuclides.

(5) Items externally contaminated with radioactive material provided such radioactive material is not readily dispersible and the surface contamination (which averaged over an area of 1 square meter) does not exceed:

(a) 0.0001 millicurie (220,000 disintegrations per

minute) per square centimeter of Transport Group I radionuclides.

(b) 0.0001 millicurie (2,220,000 disintegrations per minute) per square centimeter of other radionuclides.

j. **Containment System.** Containment system of a radioactive materials package means those components of the packaging including special form encapsulation where used, which have been specified by the package designer as intended to retain the radioactive contents during transport, whether or not individual vessels in the packaging retain their integrity of containment.

k. **Maximum Normal Operating Pressure.** Maximum Normal Operating Pressure means the maximum pressure above atmospheric pressure at mean sea level that would develop in the containment system in a period of 1 year, under the conditions of temperature and solar radiation corresponding to environmental conditions of transport in the absence of venting, external cooling by an ancillary system, or operational controls during transport.

l. **Type A Quantity and Type B Quantity.** A quantity the aggregate radioactivity of which does not exceed that in table 12-1.

Table 12-1. Package Limits.

Transport Group	Type A Quantity (Curies)	Type B Quantity (Curies)
I	0.001	20
II	0.05	20
III	3.0	200
IV	20.0	200
V	20.0	5,000
VI and VII	1,000.0	50,000
Special Form	20.0	5,000

Except that for Californium-252 the Type A quantity limit for special form is 2 curies.

m. **Large Quantity Radioactive Materials.** A quantity of radioactive materials in which the aggregate radioactivity exceeds:

- (1) Transport Groups I and II radionuclides: 20 curies.
- (2) Transport Groups III and IV radionuclides: 200 curies.
- (3) Transport Group V radionuclides: 5,000 curies.
- (4) Transport Groups VI and VII and radionuclides: 50,000 curies.
- (5) Special form materials: 5,000 curies.

n. **"Radioactive Device."** Any manufactured article such as an instrument, clock, electronic tube or apparatus, or similar device having radioactive material (other than liquid) in a nondispersible form as a component part.

12-2. Storage and Handling of Radioactive Materials:

a. General:

(1) Each shipment of radioactive material must be routed, by the transportation or supply officer, either to the requesting activity or to a storage site approved by radiological protection personnel. Upon notification that a shipment is en route the receiving agency and the medical facility must be notified as soon as practicable.

(2) Storage areas must be identified clearly by a Radiation Warning Placard and sufficient information to permit individuals handling or using the containers to take precautions to avoid or minimize exposure. The working placard must be placed on the exterior boundary of every point of approach.

(3) No outside container is opened for any reason except under the supervision of qualified radiological protection personnel.

(4) No person is allowed to carry aboard a passenger carrying aircraft any package of radioactive material which contains a large quantity (large radioactive source) of radioactivity.

(5) If the necessity for temporary storage arises while any packages of radioactive ma-

Table 12-3. Continued.

Element (with Atomic Number)	Radionuclide*	Transport Group	Element (with Atomic Number)	Radionuclide*	Transport Group
	U-236	II			
	U-238	III	Ytterbium (70)	Yb-175	IV
	U Natural	III	Yttrium (39)	Y-83	III
	U Enriched***	II		Y-90	IV
	U Depleted	III		Y-91m	III
Vanadium (23)	V-48	IV		Y-91	III
	V-49	III		Y-92	IV
Xenon (54)	Xe-125	III	Zinc (30)	Y-93	IV
	Xe-131m	III		Zn-65	IV
	Xe-131m (uncompressed)**	V		Zn-69m	IV
	Xe-133	III		Zn-69	IV
	Xe-133 (uncompressed)**	VI	Zirconium (40)	Zr-93	IV
	Xe-135	II		Zr-95	III
	Xe-135 (uncompressed)**	V		Zr-97	IV

* Atomic weight shown after the radionuclide symbol.

** "Uncompressed" means at a pressure not exceeding 14.7 psi (absolute).

*** Fissile radioactive material.

★ Any radionuclide not listed in the above table shall be assigned to one of the groups according to the following table:

Radionuclide	Radioactive half-life		
	0-1,000 days	1,000 days to 10 ⁶ yrs	Over 10 ⁶ yrs
Atomic number 1-81	Group III	Group II	Group III
Atomic number 82 and over	Group I	Group I	Do

Note: No unlisted radionuclides shall be assigned to Groups IV, V, VI, or VII.

material to be in a nondispersible form does not apply.

(1) Radioactive materials are securely contained within the devices, or are securely packaged in strong, tight containers, so that there will be no leakage of radioactive material under air transport conditions.

(2) The radiation dose rate does not exceed 10 millirem per hour at four inches from any unpackaged device.

(3) The radiation dose rate does not exceed 0.5 millirem per hour at any point on the external surface of the exterior container. However, for exclusive use shipments only, the radiation at the external surface of the container may exceed 0.5 millirem per hour, but must not exceed 2 millirem per hour.

(4) There is no significant removable radioactive surface contamination on the exterior of the package (see paragraph 12-10).

(5) The total radioactivity content of a package containing radioactive devices must not exceed the quantities shown in the table below.

(6) No package may contain more than 15 grams of fissile material.

Transport Group	Quantities in Curies	
	Per Device	Per Package
I	0.0001	0.001
II	0.031	0.05
III	0.01	3.0
IV	0.05	3.0
V	1.0	1.0
VI	1.0	1.0
VII	25.0	200.0
Special form:	0.05	20.0

e. Manufactured articles, other than reactor fuel elements, in which the sole radioactive material is metallic natural or depleted uranium or natural thorium or alloys thereof:

(1) The radiation dose rate at any point on the external surface of the exterior container does not exceed 0.5 millirem per hour.

(2) There is no significant radioactive surface contamination on the exterior of the package. To determine whether "significant" the standards in paragraph 12-10 must be used.

(3) The total radioactivity content of each article does not exceed 3 curies.

(4) The outer surface of the uranium or thorium is enclosed in nonradioactive, sealed, metallic sheath.

12-7. Low Specific Activity Radioactive Material and Radioactive Material in Normal Form:

a. **Type A Quantities.** In addition to the applicable requirements of paragraphs 1-2 and 12-4 Type A quantities must be packed in specification containers as follows:

(1) Type A general packaging, DOT 7A. Each shipper of a 7A packaging must maintain on file for at least 1 year after the latest shipment, and be prepared to provide DOT, a complete certification and supporting safety analysis demonstration that the construction methods, packaging design, and material of construction are in compliance with the specification.

(2) Metal encased shielded container, DOT 55. Use of existing containers authorized; construction not authorized after 31 March 1975. For liquid contents the provisions of paragraph 12-4g must also be met.

(3) Any Type B packaging pursuant to paragraph b below.

b. **Type B Quantities.** Must be packed as follows:

(1) Metal packaging (drum), DOT 6M. Authorized only for solid or gaseous materials which do not decompose at temperatures up to 205°F.

(2) Any other Type B packaging approved by the US Atomic Energy Commission.

(3) Wooden outer protective jacket, DOT 20WC, with a single snug fitting inner DOT 2R or 55 containers. Only use of existing DOT 55 containers authorized; construction not authorized after 31 March 1975. For liquid contents, the provisions of paragraph 12-4g must also be met, with respect to the inner container.

c. **Large Quantities of Radioactive Materials in Normal Form.** Must be packed as follows:

(1) Metal packaging (drum), DOT 6M. Authorized only for solid or gaseous materials which do not decompose at temperatures up to 250°F. Radioactive thermal decay energy must not exceed 10 watts.

(2) Any other Type B packaging for large quantities of radioactive materials approved by the US Atomic Energy Commission.

12-8. Radioactive Material in Special Form:

a. **Type A Quantities.** In addition to the applicable requirements of paragraphs 1-2 and 12-4 Type A quantity of special form radioactive material must be packed as follows:

(1) Type A General Packaging DOT 7A. Each shipper of a 7A package must maintain on file for at least 1 year after the latest shipment, and be prepared to provide DOT a complete certification and support safety analysis demonstrating that the construction methods, packaging design and material of construction are in compliance with the specification.

(2) Metal encased shielded container, DOT 55. Use of existing containers authorized; construction not authorized after 31 March 1975.

(3) Any Type B packaging pursuant to paragraph b below.

b. **Type B Quantities.** Must be packed as follows:

(1) Metal encased shielded container, DOT 55. Authorized only for shipments of not more than 300 curies per package. Use of existing containers authorized; construction not authorized after 31 March 1975.

(2) Metal packaging, DOT 6M.

(3) Any other Type B packaging approved by the US Nuclear Regulatory Commission.

(4) Wooden outer protective jacket, DOT 20WC, with single snug-fitting inner Type A packaging which has a metal outer wall and conforms to DOT 7A or 55. Use of existing DOT 55 container authorized; construction not authorized after 31 March 1975.

(5) Wooden-steel protective overpack, Specification DOT 21WC, with a single inner DOT 2R or 55, inner packaging. Use of existing DOT 55 container authorized; construction not authorized after 31 March 1975. Contents must be loaded within the inner packaging to preclude loose movement during transportation. The inner packaging must be securely positioned and centered within the overpack by solid cushioning materials so that there would be no significant displacement of the inner packaging if the packaging were subjected to the 9 meter (30-foot) drop test described in paragraph 12-4.

c. **Large Quantities of Radioactive Material in Special Form:**

(1) Must be packed in metal packaging (drum), DOT 6M. Radioactive thermal decay energy must not exceed 10 watts.

(2) Any other Type B packaging which meet the pertinent requirements for large quantities of radioactive materials in the regulations of the US Nuclear Regulatory Commission (10CFR Part 71) and is approved by the US Atomic Energy Commission.

(3) Wooden outer protective jacket, DOT 20WC with a single, snug-fitting DOT 55 inner packaging. Use of existing DOT 55 container authorized; construction not authorized after 31 March 1975. Radioactive thermal decay energy must not exceed 100 watts.

12-9. Fissile Radioactive Material:

a. Fissile radioactive materials containing not more than Type A quantities of radionuclides, in either normal form or special form, must be packaged as follows:

(1) Metal container (drum), DOT 6L. See b below.

(2) Metal package (drum), DOT 6M. Authorized only for solid radioactive material as provided for in subparagraph b(2)(a) below.

(3) Any container provided for in paragraph 12-7 above provided the following conditions are met:

(a) Not more than 500 grams of uranium -235 as Fissile Class III, or not more than 40 grams of uranium -235 as Fissile Class II. For any Fissile Class II shipment, the transport index to be assigned to each package is 0.4 for each gram of uranium -235 above 15 grams, up to a maximum of 40 grams (transport index of 10).

(b) Not more than 320 grams of plutonium -239 as

plutonium-beryllium neutron sources in special form. Total radioactivity content must not exceed 20 curies. The transport index to be assigned to each package is 0.5 for each 20 grams, or fraction thereof, of fissile plutonium.

★ (4) Any other type A or B packaging for fissile radioactive materials which also meets the pertinent standards for packaging in the regulations of the Nuclear Regulatory Commission (10 CFR Part 71) and is approved by the Nuclear Regulatory Commission.

Protective overpack specification No.	Maximum inner cylinder diameter		Maximum Weight of U ²³⁵ contents		Maximum U ²³⁵ enrichment w/o	Fissile class II transport index
	Inches	Centimeter	Pounds	Kilograms		
20PF-1	5	12.7	55	25	100	0.1
20PF-2	8	20.3	255	116	12.5	.4
20PF-3	12	30.5	460	209	5.0	1.1
★ 21PF-1 ¹	² 30	76	4,950	2,247	5.0	5.0
	³ 30	76	5,020	2,279	5.0	5.0
★ 21PF-2 ¹	² 30	76	4,950	2,247	5.0	5.0
	³ 30	76	5,020	2,279	5.0	5.0

¹ For 30-in cylinders, the maximum H/U atomic ratio is 0.088.

★ ² Model 30A inner cylinder (Reference: ORO-651).

★ ³ Model 30B inner cylinder (Reference: ORO-651).

(6) Steel Drums, DOT 6J or 17H for transport of not more than 350 grams or uranium-235 in any nonpyrophoric form, enriched to any degree in the U-235 isotope. Each 55 gallon drum must have a minimum 18 gauge body and bottom head and 16 gauge removable top head, with one or more corrugations in the cover near the periphery. Closure must conform to applicable DOT specification. At least four 1.2 centimeter (0.5 inch) diameter vent holes must be provided, equally spaced on the sides of the drum near the top, each covered with weather-proof tape, or equivalent device. Appropriate primary inner containment of the contents and any necessary packing material must be provided, such as plastic or metal jars or cans or plastic wrapping, such that Specification 7A provisions are satisfied. Each inner containment vessel must be capable of venting in the event the package was exposed to the thermal test described in 49CFR (part 173.398(c)(2)(iii)). Additionally, liquid contents must be packaged in accordance with paragraph 12-4g. The maximum weight of contents, including internal packing must

(5) Phenolic-foam insulated protective overpack, DOT Specification 20PF-1, 20PF-2, 21PF-1 or 2 with snug-fitting inner metal cylinders meeting all the applicable requirements of paragraphs 1-2, 12-4 and 49CFR 173.398(b). Handling procedures and packaging criteria must be in accordance with USAEC Report No. ORO-651 or ANSI Standard N-14.1-1971. Quantities of uranium hexafluoride are authorized as follows with each package to be shipped as fissile Class II, and assigned a minimum transport index as indicated.

not exceed 91 kilograms (200 pounds) with fissile material content limited as follows:

Maximum U ²³⁵ per package (grams)	Minimum transport index per package as fissile class II	Maximum package per transport vehicle as fissile class II
350	1.8	72
300	1.9	129
250	0.5	256
200	0.3	500
150	0.1	500
100	0.1	500
50	(1)	(1)

Fissile class I.

(7) Any metal cylinder which meets the performance requirements for a DOT 7A Type A packaging for the transport of residual "heels" of enriched solid uranium hexafluoride without a protective overpack, are authorized as Fissile Class I packages, in accordance with the following:

Maximum cylinder diameter		Cylinder volume		Maximum U ²³⁵ enrichment (weight percent)	Maximum "heel" weight per cylinder (U ²³⁵)		
Inches	Centimeters	Cubic feet	Liters		Pounds UFG	Kilograms	Kilograms
5	12.7	0.311	8.8	100.0	0.1	0.045	0.031
8	20.3	1.359	39	12.5	.5	.227	.019
12	30.5	2.410	68	5.0	1.0	.454	.015
39	76	25.64	725	5.0	25.0	11.35	.383

b. Fissile radioactive materials containing Type B quantities of radionuclides, in either normal form or special form, must be packed as follows:

(1) Metal container (drum), DOT 6L. Authorized only for uranium-233, uranium-235, plutonium-239 or 241, as metal oxide, or compounds which will not decompose at temperatures up to 149°C(300°F). Radioactive thermal decay energy output must not exceed 5 watts. Large

quantities of radioactive materials in normal form must be packaged in one or more sealed and leak tight metal cans or polyethylene bottles within the DOT 2R containment vessel.

(a) Fissile Class II and III packages. The following quantities of fissile radioactive materials are authorized under the Fissile Class II and III conditions listed:

Uranium-235 ¹		Plutonium ^{2,4}		Fissile class II transport index	Fissile class III maximum number of packages per transport vehicle
H/X ≤ 3	3 < H/X ≤ 20	H/X < 10	10 < H/X < 20		
14	3.6	2.5	2.4	1.3	80
				1.8	55

¹ Quantity in kilograms.

² All sources of hydrogen within the inner containment vessel must be considered in determining the H/X ratio of inner containment vessel.

³ Volume not to exceed 3.61.

⁴ Plutonium solutions are not authorized.

(2) Metal package (drum), DOT 6M. Authorized only for solid radioactive materials which will not decompose at temperatures up to 250°F. Radioactive thermal decay energy output must not exceed 10 watts. Large quantity radioactive materials in normal form must be packaged in one or more sealed and leak tight metal cans or polyethylene bottles within the DOT 2R containment vessel.

(a) Fissile Class I Packages. The following quantities of fissile radioactive material are authorized for fissile packages: 1.6 kilograms uranium-235; 0.9 kilograms of uranium-233. The maximum ratio of hydrogen to fissile material must not exceed 3, all sources of hydrogen with the DOT 2R containment vessel being considered.

NOTE: Because of the 10 watt thermal decay heat limitation, the limit for plutonium-238 is only 0.02 kilograms.

(b) Fissile Class II and III Packages. Quantities of fissile radioactive material as shown in table 12-5 are au-

thorized for a Fissile Class II and Fissile Class III package. Where a maximum ratio of hydrogen to fissile material is specified in the table, only the hydrogen interspersed with the fissile material need be considered. For a Fissile Class II package, the minimum transport index to be assigned is shown in the following table. For a Fissile Class III package, the maximum number of similar packages per transport vehicle is shown. Each Fissile Class III shipment is also subject to paragraph 12-3c. For a uranium-233 shipment, the maximum inside diameter of the inner containment vessel must not exceed 12 centimeters (4.75 inches). Where necessary, a tight fitting steel insert must be used to reduce a larger diameter inner containment vessel specified in 49CFR 178.104-3(b) to the 12 centimeters (4.75 inches) limit.

(3) As specified in paragraph 12-9a(4).

(4) Phenolic-Foam insulated overpack, DOT 20PF-1 through 3 or 21PF-1 or 2.

Chapter 13

MARKING, LABELING, CERTIFYING, AND PLACARDING

13-1. Marking of Hazardous Materials:

a. Each package containing explosives must be marked with the proper shipping name as shown in the alphabetical index, and such other marking as prescribed for the explosive in the packaging paragraph of chapter 5. Abbreviations, except w (with) w/o (without), and ORM (other regulated material), must not be used.

b. Packages containing explosives must show on the top "THIS SIDE UP" when required by the packaging instructions in chapter 5.

c. Each package of hazardous materials must be marked with the DOT shipping container specification number if applicable.

d. Packages containing hazardous materials as defined in this regulation must be marked with the proper shipping name as shown in the alphabetical listing.

e. Except as specified in paragraph 13-1b above, hazardous materials in inside containers must be packed with filling holes up. The outside container must be plainly marked "THIS SIDE UP" or "THIS END UP" on the cover or top to indicate the position of the inside containers. This requirement does not apply to materials in inside metal cans of the nonrefillable type with spun-in head and base and having no replaceable cap or other closing device.

(NOTE: In addition, two sides of a rectangular container and two equidistant points on circumference of a cylindrical container shall be stenciled with the word "UP," with an arrow pointing toward the top of the container. The length of the arrow must be not less than 1-inch and the shaft not less than 1/2-inch in width and the size proportioned to the available space.)

f. Additional markings on packages containing radioactive materials are required as follows:

(1) Each package of radioactive materials in excess of 50 kilograms (110 pounds) must have its gross weight plainly and durably marked on the outside of the package.

(2) Each package of radioactive material which conforms to the requirements for Type A or Type B packaging must be plainly and durably marked on the outside of the package in letters at least 13 millimeters (1/2 inch) high, with the words "TYPE A" or "TYPE B" as appropriate. A package which is not in compliance with these requirements must not be marked. Each package of radioactive materials destined for export shipment must also be marked "USA."

★ g. Each package containing a material classed as ORM must be plainly, durably, and legibly marked on at least one side or end with the appropriate ORM designation immediately following or below the proper shipping name of the material. The appropriate ORM designation must be placed within a rectangle that is approximately 1/4 inch (6.3mm) larger on each side than the designation.

13-2. Labeling Hazardous Materials:

a. Except as otherwise provided in this regulation packages containing hazardous materials must have the appropriate label(s) described in figure 13-4 applied to the outside container.

b. Each package of chemical ammunition, explosive, containing poisonous gases, solids or liquids, Class A, Class B, or irritating material must also have securely attached to it labels described in figure 13-4h or 13-4i as appropriate.

c. If the material in a package has more than one classification, one of which is Class A explosives, Class A poison, or radioactive materials, the package must be labeled for each hazard.

d. When hazardous materials having different classifications are packed in the same packaging or outside container, the outside container must be labeled as required for each material involved.

e. Labels must not be applied to a package containing material which is not regulated by this regulation. Labels must not be used which by their use, shape, and color, may be readily confused with the standard caution labels prescribed in this regulation.

f. Except as otherwise provided in figure 13-4, each label must be diamond shape with each side at least 4 inches long and have a solid line border at least 3.5 inches long on each side. The color specifications detailed in Title 49, Code of Federal Regulations should be followed for the labels prescribed.

g. Items containing both radioactive (exempt) and magnetic characteristics must be certified to the radioactive material. Magnetic material labels must be applied to the shipping container per paragraph 11-10.

h. If the etiologic agent is also a Class A poison or a radioactive material the "Poison Gas" label or "Radioactive" label must also be applied to the package.

i. Labels must be attached to that part of the package bearing the consignee's name and address, adjacent to the DD Form 1387-2. For Radioactive Materials, two labels must be attached to opposite sides of the package.

j. Labels must not be fixed over any required identification data on the container.

k. Hazardous materials class numbers are required by some foreign governments. The labels then are over-stamped or overprinted with the appropriate hazard class number located in the bottom corner of the label.

★ l. A material classed as a corrosive material that also meets the definition of a Poison B shall be labeled with a POISON label in addition to the class label.

★ m. A material classed as a Poison B that also meets the definition of a corrosive material shall be labeled with a CORROSIVE label in addition to the class label.

★ n. A material classed as a flammable liquid that also meets the definition of a corrosive material shall be

labeled with a CORROSIVE label in addition to the class label.

*c. A material classed as an oxidizer that also meets the definition of a corrosive material shall be labeled with a CORROSIVE label in addition to the class label.

13-3. Shipper's Certification:

a. Shipper's certification must be completed on DD Form 1387-2 and placed adjacent to the address markings of each container.

b. DD Forms 1387-2 shall be protected/waterproofed in accordance with MIL-STD-129. Information placed on the DD Form 1387-2 must be clear and legible.

c. The shipper's certification is required on all air shipments of hazardous materials. When excepted from specification packaging, marking, and labeling, the completed certificate is still required.

d. Only one DD Form 1387-2 is required when shipments involve an item with multiple hazards. Certification is made to the highest hazard and all other hazards are identified by proper shipping name and hazard classification.

e. Instructions for affixing and processing DD Forms 1387-2 are shown in figure 13-3.

13-4. Labeling and Certifying of Radioactive Materials:

*a. Each package of radioactive materials, unless excepted by this regulation, must be labeled as provided herein. The label to be used shall be determined by the Transport Index Number or other considerations, as follows:

* (1) Radioactive white-I label. Each package not exceeding 0.5 millirem per hour at any point on the external surface of the package, and which does not come under subparagraph (2) or (3) below. Not authorized for Fissile Class II or III.

* (2) Radioactive yellow-II label. When the above limit in subparagraph (1) is exceeded, but the limits in subparagraph (3) below are not met; and

* (a) Each package not exceeding 50 millirem per hour at any point on the external surface of the package, and not exceeding 1.0 millirem per hour at 3 feet from the external surface of the package; or

* (b) Fissile Class II package having a transport index of one (1.0) or less.

(3) Radioactive yellow-III label. When the package exceeds either of the limits in subparagraph (2) above; also, the following packages must bear this label:

(a) Each Fissile Class III package;

(b) Each package containing a large quantity of radioactive material (see paragraph 12-1m).

b. The following requirements apply to completion of the items of information in the blank spaces of the labels specified in this paragraph.

(1) "Contents." The name of the radionuclide, as taken from the listing of radionuclide in table 13-3 (symbols which conform to established radiation protection terminology are authorized). Mixtures of radionuclides on the basis of radiotoxicity must be listed as space on the label allows.

(2) "Number of Curies." Units must be expressed in appropriate curie units; curies (ci), millicuries (mci) or microcuries (uci) (abbreviations are authorized). For a fissile material, the weight in grams or kilograms of the fissile radioisotope are also inserted.

c. Radioactive materials having other hazardous characteristics, as defined elsewhere in this regulation must also be labeled with other labels as required according to the hazards of the commodity. For example:

(1) Packages containing the solid nitrates of uranium or thorium must bear both a "radioactive" label and a "oxidizer" label.

(2) Packages containing nitric acid solutions of radioactive materials must bear both a "radioactive" label and a "corrosive" label.

d. Each package (except for palletized loads) of radioactive materials offered for military airlift must bear a DD Form 1387-2. DD Form 1387-2 must be prepared in accordance with instructions in figure 13-2 except for "Handling Instructions." The following information must be provided in the "Handling Instruction" portion of the DD Form 1387-2:

(1) Transport Group, if radioactive material is normal form.

(2) Name of Radionuclide.

(3) Physical or chemical form of the material.

(4) Activity of the radioactive material in curies (or fractions thereof).

(5) Transport Index.

(6) For exempt radioactive materials the following words shall appear: "Nonhazardous Quantity."

* e. Instructions for preparing the DD Form 1387-2 for RAM is provided in Table 13-2.

13-5. Placarding:

a. Aircraft transporting classes A and B explosives and Class A poisons must be parked in a placarded area.

b. The military host is responsible for placarding aircraft at military bases. At nonmilitary airfields, the agency delivering cargo to aircraft is responsible for making arrangements with airport managers including identification of cargo, isolated parking or loading, placarding, fire fighting, disaster response. This agency is also responsible for making arrangements when cargo is off-loaded at nonmilitary airfields. Arrangements for use of en route nonmilitary airfields is the responsibility of the activity having operational control of the aircraft. A description of the placards is shown in table 13-1.

★ Table 13-1. Area Placards Required for Parked Aircraft Containing Hazardous Cargo.

Classification and Limitations or Requirements	Type of Placard (Standard Form)
Explosives, Class A (any quantity) or a combination of Class A and B explosives	SF 431
Explosives, Class B (any quantity)	SF 432
Explosives, Class C (dangerous) (1,000 lbs or more gross weight)	SF 430
Poison, Class A (any quantity)	SF 437
Poison, Class B (1,000 lbs or more gross weight)	SF 444
Irritating materials (1,000 lbs or more gross weight)	SF 430
Flammable liquid (1,000 lbs or more gross weight)	SF 438
Flammable solid (1,000 lbs or more gross weight)	SF 440
Oxidizing material (1,000 lbs or more gross weight)	SF 442
Nonflammable compressed gas (1,000 lbs or more gross weight)	SF 433
Corrosive liquid-acids and alkalis (1,000 lbs or more gross weight)	SF 446
Flammable compressed gas (1,000 lbs or more gross weight)	SF 435
Radioactive material requiring RAM Yellow-III label (any quantity)	SF 445
Etiologic agents (dangerous) (1,000 lbs or more gross weight)	SF 430
Flammable solids (water reactive) (any quantity)	SF 441
Oxygen (1,000 lbs or more gross weight)	SF 434
Organic peroxide (1,000 lbs or more gross weight)	SF 443
Background for placards (N/A)	SF 447
Mixed ladings (dangerous) (1,000 lbs or more gross weight)	SF 430
Chlorine (1,000 lbs or more gross weight)	SF 436
Flourine (1,000 lbs or more gross weight)	SF 444
Blasting Agent (1,000 lbs or more gross weight)	SF 448
NOTE: The quantity limitation will be the total weight of the packages comprising the shipment or different shipments of the same classification. When cargo contains two or more hazardous articles (other than explosives A and B, class/division 1.1, 1.2 and 1.3) which are compatible (atch 1), combine the gross weight and/or quantity for this purpose.	

★ 13-6. Certifying Vehicles With Diesel Fuel in Tank:

a. Vehicles and/or assemblies with diesel fuel shall be shipped as general cargo. However, the requirements of paragraphs 2-2b, 3-7c, and 6-27a(1) for maximum fuel in tank apply.

b. A DD Form 1387-2 must be prepared for all vehicles/assemblies with fuel in tank. Complete keys 1, 8, and 10 only for vehicles without a battery. Key 8 shall iden-

tify the fuel. The proper shipping name is: MOTOR VEHICLE (Fueled). The symbol theta shown in table 4-1 is not applicable.

c. Diesel powered vehicles/equipment with battery must be certified in accordance with paragraph 8-47. The proper shipping name is: BATTERY, ELECTRIC STORAGE WET, WITH AUTOMOBILE, AUTO PARTS, (or other specifically named mechanical apparatus). In addition, identify the type fuel and its flash point.

ITEM NOMENCLATURE		NET QUANTITY PER PACKAGE		TRANSPORTATION CONTROL NO.	
1		4		6	
2		CONSIGNMENT GROSS WEIGHT		DESTINATION	
3		5		7	
SUPPLEMENTAL INFORMATION				LOAD STORAGE GROUP	
8				9	
				FLASH POINT	
				10	
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Dept of Transportation. THIS IS A MILITARY SHIPMENT! (Complete applicable blocks below)					
11 This shipment is within the limitations prescribed for PASSENGER AIRCRAFT/CARGO-ONLY AIRCRAFT (Delete nonapplicable aircraft)		ATA/ATA-MCO REGULATIONS			
AFR 71-4, TM 38-250, NAVSUP PUB 505, MCO P4030.19, DLAM 4145.3, Paragraph		12		14	
DOD 4500.32R (MILSTAMP)		13		15	
		49 cfr		17	
		173.7(a)		DOT E 7573 18	
ADDRESS OF SHIPPER		TYPED NAME, SIGNATURE AND DATE			
19		20			
DD FORM 1 MAY 79 1387-2		PREVIOUS EDITION IS OBSOLETE SPECIAL HANDLING DATA/CERTIFICATION			

ITEM NOMENCLATURE		NET QUANTITY PER PACKAGE		TRANSPORTATION CONTROL NO.	
Explosive Bomb		123.0 NEW		PF4486 9059 W654 XAX	
Class A Explosive (12)1.2		CONSIGNMENT GROSS WEIGHT		DESTINATION	
Explosive A, Cargo Aircraft Only		5,625 lbs 592 NEW		Lajes AB AZ	
SUPPLEMENTAL INFORMATION				LOAD STORAGE GROUP	
				6, Note b	
				FLASH POINT	
				NA	
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Dept of Transportation. THIS IS A MILITARY SHIPMENT! (Complete applicable blocks below)					
X This shipment is within the limitations prescribed for PASSENGER CARGO-ONLY AIRCRAFT (Delete nonapplicable aircraft)		ATA/ATA-MCO REGULATIONS			
X AFR 71-4, TM 38-250, NAVSUP PUB 505, MCO P4030.19, DLAM 4145.3, Paragraph 5-29a(2)		49 cfr		PARAGRAPH	
DOD 4500.32R (MILSTAMP)				EXEMPTION	
				173.7(a)	
				DOT E 7573	
ADDRESS OF SHIPPER		TYPED NAME, SIGNATURE AND DATE			
Address		Name and date			
DD FORM 1 MAY 79 1387-2		PREVIOUS EDITION IS OBSOLETE SPECIAL HANDLING DATA/CERTIFICATION			

Figure 13-1. Coded Samples DD Form 1387-2.

ITEM NOMENCLATURE Sodium Aluminate Solution Corrosive Material, UN 1819 Corrosive		NET QUANTITY PER PACKAGE 1 Gal		TRANSPORTATION CONTROL NO N0017102261934XXX	
		CONSIGNMENT GROSS WEIGHT 10 lbs		DESTINATION Washington Navy Yard DC	
SUPPLEMENTAL INFORMATION Neutralizing agent-5% acetic acid				LOAD STORAGE GROUP 20, Note a	
				FLASH POINT NA	
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Dept of Transportation. THIS IS A MILITARY SHIPMENT! (Complete applicable blocks below)					
X	This shipment is within the limitations prescribed for PASSENGER AIRCRAFT/CARGO-ONLY AIRCRAFT (Delete nonapplicable aircraft)		ATA/ATA/MCO REGULATIONS		
X	AFR 71-4, TM 38-250, NAVSUP PUB 505, MCO P4030.19, DLAM 4145.3, Paragraph 8-8a(2)		PARAGRAPH		EXEMPTION
	DOD 4500.32R (MILSTAMP)		49 cfr	173.2 (a)	DOT E 7573
ADDRESS OF SHIPPER Address			TYPED NAME, SIGNATURE AND DATE Name and date		
DD FORM 1 MAY 79 1387-2		PREVIOUS EDITION IS OBSOLETE		SPECIAL HANDLING DATA/CERTIFICATION	

ITEM NOMENCLATURE Radioactive Material NOS Radioactive Material, NA 9181 Radioactive, Cargo Aircraft Only		NET QUANTITY PER PACKAGE 2 Curies		TRANSPORTATION CONTROL NO FB2356 1924 1202XXX	
		CONSIGNMENT GROSS WEIGHT 10 lbs		DESTINATION WPAFB OH	
SUPPLEMENTAL INFORMATION Transport Group: III Activity: 2 curies Name: Cesium(Cs-137) Transport Index: 0.2 mr/hr Form: Solid(physical)				LOAD STORAGE GROUP 26	
				FLASH POINT NA	
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Dept of Transportation. THIS IS A MILITARY SHIPMENT! (Complete applicable blocks below)					
X	This shipment is within the limitations prescribed for PASSENGER CARGO-ONLY AIRCRAFT (Delete nonapplicable aircraft)		ATA/ATA/MCO REGULATIONS		
X	AFR 71-4, TM 38-250, NAVSUP PUB 505, MCO P4030.19, DLAM 4145.3, Paragraph 12-7a(1)		PARAGRAPH		EXEMPTION
	DOD 4500.32R (MILSTAMP)		49 cfr	173.2 (a)	DOT E 7573
ADDRESS OF SHIPPER Address			TYPED NAME, SIGNATURE AND DATE Name and date		
DD FORM 1 MAY 79 1387-2		PREVIOUS EDITION IS OBSOLETE		SPECIAL HANDLING DATA/CERTIFICATION	

Figure 13-1. Continued.

GENERAL INSTRUCTIONS FOR COMPLETING DD FORM 1387-2

1. Proper Shipping Name. Enter the proper shipping name as it appears in table 4-1. Alphabetical Listing of Items. (Ensure that spelling is exact since some chemical names have similar spellings.)

NOTE: When technical name of material is required, it is entered after the proper shipping name and before the classification.

2. Classification. In the same block, and below the proper shipping (technical name, if appropriate), enter the classification as given in column 2 of Table 4-1. Excepting for ORM, abbreviations will not be used. The DOD hazard Class/Division will be provided on the same line following the DOT Class for explosives. Also show the identification number assigned to the material in Table 4-1.

3. Label(s) Required. Enter the type of labels which this regulation and the DOT requires, as shown in column 3 of table 4-1. Enter this information immediately below the classification in "Item Nomenclature." If the third column of that table is blank or specifies "None" enter "Label None." If the shipment is only authorized for movement via cargo aircraft only, then enter the words "Cargo Aircraft Only" after the hazard label. Cargo aircraft only labels are not applicable for tactical or contingency airlift of hazardous cargo.

4. Net Quantity Per Package. Enter the weight (lbs, oz, gm, kilogram, etc.), volume (pint, quart, cc, liter, etc.), or measure of the actual hazardous material only, exclusive of any other nonhazardous content of the shipment. For class A or B explosive, enter the "Net Explosive Weight (NEW)" in pounds per package or per pallet.

5. Consignment Gross Weight. Enter the total consignment weight for all packages shipped under the TCN. Show the total NEW on all four signed copies that are affixed to the first container.

6. Transportation Control Number (TCN). Enter the 17-character TCN.

7. Destination. Enter the in-the-clear geographical location of the ultimate consignee; and/or the coded location.

8. Supplemental Information:

a. Enter the handling information for the following classifications:

(1) Explosives requiring special handling and those shipped under paragraph 5-61.

(2) Class A Poisons.

(3) Etiologic Agents.

(4) Radioactive Materials (see paragraph 13-4d).

(5) Aircraft and Helicopters (see paragraphs 5-1e and 6-30).

★(6) Liquid Gases, Nonpressurized (see paragraphs 11-29 and 11-30).

b. Neutralizing Materials for Corrosive Liquids. Enter the neutralizing material prescribed in attachment 5 for corrosive liquid.

9. Loading and Storage Chart Group (L/S GRP). Enter the applicable group from attachment 1. If appropriate, add any note (for example, L/S GRP 6, note b) that appear in the chart.

10. Flash Point (FP). When flammable liquids are shipped, enter the flash point in degrees Fahrenheit (F). When known, enter the method of determining the flash point (Tag CC, Seta Flash, or Pensky-Martins).

★ **11. Shipment Within Passenger Aircraft/Cargo Aircraft Limitations.** If the shipment is acceptable for movement on both passenger and cargo aircraft, check this block. If the shipment (single dagger or theta coded items) is allowed on cargo aircraft only, check this block and delete "passenger aircraft." If the shipment is not air eligible, do not check this block and print or type FORBIDDEN in key 12.

12. Subparagraph Certification. Check this block and enter the paragraph and subparagraph under which the package has been identified and certified as ready for shipment. If the material has not been packaged as prescribed in table 4-1, check this block and cite the authority for shipment. (For example, if it has been under paragraph 1-2c or 1-5, enter the pertinent paragraph; similarly, if it has been approved by separate letter, message, or other instruction, cite that and give the date, number etc.)

13. MILSTAMP. Check this block when this form is used for other than hazardous shipments. Enter the appropriate reference in DOD 4500.32R.

14. ATA/IATA/IMCO Regulations. Check this block if movement is via a commercial mode and delete the non-applicable regulation (for example, if the movement is under IATA regulations, delete ATA and IMCO). Also enter an applicable paragraph number or note.

15 through 18 Federal Regulations/Exemptions. Occasional shipments of hazardous materials will be certified to Title 49 CFR or under exemptions issued under part 107 of that title. In all cases, shipments that are certified under Title 49 will have the block in front of 49 CFR checked:

a. (15) If certifying to a packaging reference in Title 49 CFR (normally part 173), the complete references including part, section, paragraph, and subparagraph will be

Figure 13-2. Instructions for Completing DD Form 1387-2. (See coded sample.)

shown, (for example 173.217(a)(2)). This information will be shown under "paragraph."

★ b. (16) 173.7(a). Packages which are equal or better than that prescribed in Title 49 CFR but are not specified in the applicable packaging paragraphs contained therein will be certified under 49 CFR 173.7(a) by checking this block. If applicable show the certificate of equivalency (COE) number.

c. (17) Exemptions. Check this block and enter the DOT exemption number which authorizes administrative relief (example, DOT-E-868).

★ d. (18) DOT-E-7573. When using this exemption, check this block.

★ 19. Address. Enter the activity address of the certifying official.

★ ADDITIONAL INSTRUCTIONS FOR PREPARING DD FORM 1387-2 FOR RADIOACTIVE MATERIAL

1. Proper Shipping Names for Radioactive Materials (Key 1):

a. **Radioactive Material, Fissile, NOS.** The only time this proper shipping name will be used, is when the Radionuclide being shipped is identified by three (3) asterisks in Chap 12, Table 12-3, i.e., (Plutonium 238, 239 and 241 or Uranium 233 and 235).

b. **Radioactive Device, NOS.** The only time this proper shipping name will be used, is when the item is a manufactured material, i.e., (Atomic Clock, Navigational Equipment, Electron Tubes, etc.)

c. **Radioactive Materials, NOS. This is a catch all proper shipping name that will be used most of the time.

d. **Radioactive Material, Low Specific Activity, NOS.** The only time this proper shipping name will be used, is when the Supply document states Low Specific Activity material.

e. **Radioactive Material, Small Quantity, NOS. The only time this proper shipping name will be used, is when it does not exceed the quantity limits in para 12-6.

f. **Radioactive Material, Special Form, NOS.** The only time this proper shipping name will be used, is when the Shipper states that the material is Special Form.

g. The following are proper shipping names for specific radioactive materials, and will only be used when the following items are being shipped.

- (1) Thorium Metal, Pyrophoric
- (2) Thorium Nitrate
- (3) Uranium Hexafluoride, Fissile (Containing More Than 0.7% U-235)
- (4) Uranium Hexafluoride, Low Specific Activity (Containing 0.7% or Less U-235)
- (5) Uranium Metal, Pyrophoric
- (6) Uranyl Acetate (RQ-5000/2270)

Items coded with asterisk (), are the only two proper shipping names that the certifying official will have to make a determination on which is correct. Paragraph 12-6 will be used to determine this.

20. **Signature.** The official who certifies that the shipment complies with the requirements of this regulation must sign the form in longhand. If any additional signatures and certifications are required, place these on the reverse side of the form. However, each such signature must be in longhand above the typed name.

NOTE: During tactical operation or mobility exercises certifying officials may legibly handprint or stamp the name on the DD Form 1387-2. This procedure is authorized when a typewriter is not available or preprinting cannot be accomplished. Certifying official's signature is still required.

(7) Uranyl Nitrate Hexahydrate Solution

(8) Uranyl Nitrate, Solid (RQ-5000/2270)

2. **Supply Document Information.** The following information must be provided on the Supply Document in order to complete and certify Radioactive Material Shipments (Key 8).

a. **Name and Radionuclide.** Name of the material, i.e., gold Au-198, Uranium U-233, Copper Cu-64, etc.

b. **Form.** Radioactive materials will be in one of two forms, either Normal Form or Special Form.

c. **State.** This is the physical or chemical form of the Radioactive Materials being shipped, i.e., liquid, gas, solid, etc.

d. **Activity/Quantity.** This is the amount of radioactive material being shipped, measured in Curies or fractions thereof, i.e., Millicuries/Microcuries.

e. **Transport Index.** This is a reading taken with a geiger counter three (3) feet from any point on the exterior surface of the container. This reading is measured in Millirems Per Hour (MR/HR). If this reading is not provided on the supply document, then it can be taken by Disaster Preparedness, Environmental Health, Radiobiology Dept of Hospital or personnel in transportation who have been qualified to use a geiger counter.

3. Step by Step Instructions for Preparing the DD 1387-2 for Radioactive Materials Shipments.

a. **Chapter 12, page 12-6, Table 12-3.** Find the Name and Radionuclide of the material and the Transport Group, if it is shipped in Normal Form.

b. **Chapter 13, page 13-2, para 13-4d.** The information in paragraph 13-4d must be placed in the Supplemental Information Block of the DD 1387-2.

c. **Chapter 12, page 12-5, para 12-6.** If the item is a Small Quantity or not.

d. **Chapter 4, Table 4-1.** Find the proper shipping name, class, label, packing paragraph and Load and Stor-

age Group, and + or Ø required. Enter this information on DD 1387-2.

e. **The Transport Index.** Used to determine the label using Chapter 13, page 13-2, para 13-4a, that is, Radioactive white I, Radioactive yellow II, Radioactive yellow III.

f. **Chapter 12, page 12-2, Table 12-1.** Used to deter-

mine the package limit. This is based on the quantity of Radioactive Material and Transport Index for Normal Form. Special Form has one listing.

g. **Chapter 12.** Turn to packaging paragraph and determine which DOT container to use. The subparagraph entry on the DD 1387-2 is now completed.

Figure 13-2. Continued.

AFFIXING AND PROCESSING DD FORM 1387-2

★ 1. The original signed certification must be affixed to the number one package of the shipment. Three signed copies must be placed in a waterproof envelope, marked "DD Form 1387-2," and affixed to the outside of the number one shipping container. An additional DD Form 1387-2 must be attached to each container in the shipment (signature may be omitted). EXCEPTION: Unitized loads of the same hazardous materials or ammunition require only one DD Form 1387-2 on each side and end of the assembled load, provided the shipment is being made from the shipping activity to a single consignee or user. If it becomes necessary to break down a unitized load within the transportation cycle, the activity requiring the breakdown will be responsible for preparing and affixing DD Form 1387-2 that may be required.

★ a. The originating air terminal retains a signed copy of the form; forward one signed copy attached to the air manifest; and enclose one signed copy in the envelope (marked "DD Form 1387-2") affixed to the number one container. If the originating shipper is at the originating air terminal, he or she may tender shipment to the terminal receiving section by placing only one signed copy of the form in the envelope, and attach the other two signed copies of the form to the shipping documents.

b. The intransit station forwards the signed copy of the form that is affixed to the air manifest to MAC APOE or to CONUS final destination, as appropriate.

★ 2. If only one signed copy of the form is available, the air terminal places it in the envelope affixed to the number one container and attach a copy of the DD Form 1387-2 to the manifest. (An intransit terminal may make reproductions of the completed DD Form 1387-2 as necessary.)

3. If a kit is being shipped which contains more than one type of hazardous material, prepare the DD Form 1387-2 as follows:

★ a. If the kit consists of only one container, prepare the DD Form 1387-2 (original plus three) for the highest hazard. List all the other hazards and classes in key 8 of the form.

b. If the kit consists of more than one container, prepare DD Form 1387-2 (original plus three) for each container and enter the shipping name of the material it contains. Also, add the notation, "contained in box of," as appropriate. (Staple the extra copies together for the entire kit, and attach them to the signed copies that are to be shipped with the number one box.)

★ 4. If the information to be entered on the DD Form 1387-2 is classified, the following procedures apply:

a. One signed copy of the form is completed in detail, including essential classified data and attached to the air manifest.

b. The air manifest must then carry this same classification until the classified form is detached and handled according to applicable security regulations.

c. The following statement must be shown in the "Information" block of the form: "See aircraft commander's copy of DD Form 1387-2," and "Signature Service Required."

5. If the material is being shipped by special mission aircraft, under all of the following conditions, only one form is required:

a. The shipment consists of material with a single item name and the hazardous material is packed in identical containers.

b. The number one box has a certified signed copy of the form, and is stowed so that the crew can refer to it readily.

c. The flight is nonstop from originating air terminal to receiving air terminal.

d. The shipment complies with all other requirements in paragraph 13-2.

Figure 13-3. Instructions on Affixing and Processing DD Form 1387-2. These instructions tell how to affix the label and what to do if the extra copies have disappeared. Also, it explains what to do when there is classified material, if the package contains more than one type of hazardous material, and when no label is required.

★ DD FORM 1387-2 REQUIREMENTS

TYPE OF SHIPMENTS	NUMBER DD 1387-2 REQUIRED	DISTRIBUTION
Single container or One piece shipment	4, original and 3 copies	Original affixed to container 1 copy enclosed in water proof envelope 1 copy filed Air Terminal Record Section 1 copy attached to Air Cargo Manifest
Multiple container shipment on same Transportation Control Number	4, original and 3 copies for # 1 container 1 unsigned copy for each additional container in shipment	Distribution same as for single container shipment. 1 unsigned DD 1387-2 affixed to each additional container in shipment.
Unitized/Palletized Shipments	7, original and 6 copies	One affixed to each of the four sides of loads. 1 copy enclosed in water proof envelope 1 copy filed Air Terminal Record Section 1 copy attached to Air Cargo Manifest
Classified Shipment	4, One original will contain classified information. Other three will state "See Aircraft Commander's Copy & Signature Service Required".	Original affixed to container (No classified information) 1 copy enclosed in water proof envelope (No classified information) 1 copy filed Air terminal Record Section (No classified information) Original with classified information attached to Air Cargo Manifest (under separate cover and stamped with appropriate security classification)

Figure 13-3. Continued.

★ a. **Explosive Labels.** SF 400, Explosive A; SF 401, Explosive B; and SF 402, Explosive C, must be orange, with the inscription, border, and symbol black. Blasting agents, SF 423, must be orange with the inscription black.

NSN 7540-00-118-0022



Standard Form 400

NSN 7540-00-118-0083



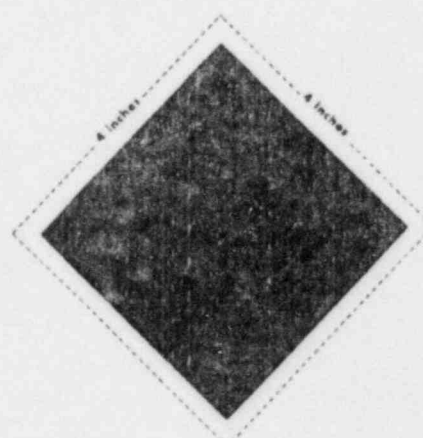
Standard Form 401

NSN 7540-00-118-0113



Standard Form 402

NSN 7540-01-074-7028



Standard Form 423

Figure 13-4. Labels Required for Shipment of Hazardous Materials.

b. Nonflammable Gas Label. SF 403, Nonflammable gas, must be green, with the inscription, border, and symbol black.

NSN 74 NSN 7540-00-118-0156



Standard Form 403

c. Flammable Gas Label. SF 404, Flammable Gas, must be red, with the inscription, border, and symbol black.

NSN 7540-00-118-0231

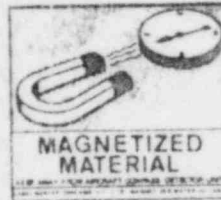


Standard Form 404

Figure 13-4. Continued.

r. **Magnetized Material.** This is a blue label rectangular in shape, which measures $3\frac{7}{16}$ x $4\frac{5}{16}$ inches. It is printed in blue and the symbol is white.

NSN 7540 01 021 7389 (Nonadhesive)
NSN 7540 01 053 8869 (Adhesive)



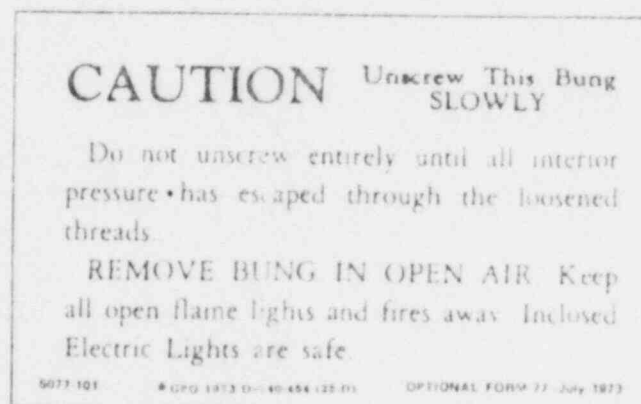
Standard Form 422

Figure 13-4. Continued.



Available in 5 x 4 inches as:
OF 78
NSN 7540-00-139-4777
Also available in 10 x 8 inches as:
OF 79
NSN 7540-00-139-4784

s. Bung Label. This is a white rectangle, measuring 5 x 3 inches; that is printed in black letters as shown.



OF 77
NSN 7540-00-139-4764

Figure 13-4. Continued.

t. Cargo Aircraft Only Label. SF 421, Cargo Aircraft Only, must be printed in black and the symbol must be black and orange.

NSN 7540-01-053-8869 (Adhesive)
NSN 7540-01-021-7389 (Nonadhesive)



Standard Form 421

Figure 13-4. Continued.

LOADING AND STORAGE CHART FOR TRANSPORTATION OF EXPLOSIVES AND
OTHER HAZARDOUS MATERIALS

NOTE: For convenience in using this table, this page was left intentionally blank. Refer to pages A-2 and A-3.

Table A-1. Loading and Storage Chart for Transportation of Explosives and Other Hazardous Materials

The table below shows the explosives and other hazardous articles which must not be loaded or stored together. The letter X at an intersection of horizontal and vertical columns show that these articles must not be loaded or stored together, for example: Detonating Fuses, Class A, with or without radioactive components, 7 horizontal column must not be loaded or stored with high explosives, Class A, 2 vertical column. The following codes apply to the table below.

L/S Group	Class A Explosives	L/S Group	Class B Explosives	L/S Group	Class C Explosives
1	Low explosives or black powder.	8	Ammunition for cannon with empty, inert-loaded or solid projectiles, or without projectiles, or rocket ammunition with empty projectiles, inert-loaded or solid projectiles or without projectiles.	14	Time combination or detonating fuses, Class C.
2	High explosives or propellant explosives, Class A.	9	Propellant explosives, Class B. Rocket Engines (liquid). Class B. Rocket Motor, Class B. Igniter, Rocket Motor, Class B. jet thrust units (gato), class B. igniters, jet thrust (gato) Class B. starter cartridges, jet engines, class B. igniter, ramjet engines, or explosive power devices, Class B.	* 15	Cordieu detonant fuse, safety squibs, fuse lighters, fuse igniters, delay electric igniters, electric squibs, instantaneous fuse, igniter cord, or safety fuse.
3	Initiating or priming explosives, wet: Diazodinitrophenol, fulminate of mercury, guanyl nitrosamino guanidine hydrazine, lead azide, lead styphnate, nitro mannite, nitroguanidine, pentacerythrate tetranitrate, tetrazene.	10	Fireworks, special or railway torpedoes.	16	Fireworks, common, flares, or signals.
* 4	Detonators, and detonating primers.			* 17	Detonators, and detonating primers.
* 5	Ammunition for cannon with explosive projectiles, gas projectiles, smoke projectiles, incendiary projectiles, illuminating projectiles or shell, ammunition for small arms with explosive bullets, or ammunition for small arms with explosive projectiles or rocket ammunition with explosive projectiles, gas projectiles, smoke projectiles, incendiary projectiles, illuminating projectiles, booster or bursters.	11	Small arms ammunition.		
* 6	Explosive projectiles, bombs, torpedoes, or mines, rifle or hand grenades (explosive), jet thrust units (gato), explosive, Class A, or igniters, jet thrust (gato), explosive, class A, Rocket motors, Class A. Igniters, Rocket Motor, Class A.	12	Primers for cannon or small arms, empty cartridge bags-black powder igniters, empty cartridge cases, primed, empty grenades, primed, combination primers, percussion caps, toy caps, explosive cable cutters, explosive power devices, explosive rivets, starter cartridge, jet engine class C, actuating cartridges.		
7	Detonating fuses, Class A, with or without radioactive components.	13	Percussion fuses, tracer fuses or tracers.		

OTHER HAZARDOUS MATERIALS

18	Flammable liquids or compressed flammable gases.
* 19	Flammable solids or oxidizing materials.
20	Corrosive materials.
21	Compressed nonflammable gases.
22	Poisonous gases or liquids, Class A Poisons.
23	Endocrine Agents/Biological Research Material.
24	Poisonous liquids or solids, class B Poison.
* 25	Irritating material.
* 26	Radioactive materials.
27	Engines and motors (internal combustion), aerospace ground equipment, and self-propelled vehicles.
* 28	Other Regulated Material.
* 29	Blasting Agent.

★ Table A-1. Continued.

	Class A Explosives						Class B Explosives						Class C Explosives						Other Hazardous Articles										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
A	1	X		X						X						X		X	X	X									
	2		X							X						X		X	X	X									
	3	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X									
	4	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X									
	5	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X									
	6	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X									
B	7	X	X	X	X	X										X		X	X	X									
	8									X								X	X	X									
	9									X								X	X	X									
	10	X	X	X	X	X				X								X	X	X									
	11									X								X	X	X									
	12									X								X	X	X									
C	13									X								X	X	X									
	14									X								X	X	X									
	15									X								X	X	X									
	16									X								X	X	X									
	17									X								X	X	X									
	18									X								X	X	X									
Other Hazardous Articles	19									X									X										
	20									X									X										
	21									X									X										
	22									X									X										
	23									X									X										
	24									X									X										
	25									X									X										
	26									X									X										
	27									X									X										
	28									X									X										
	29									X									X										
	30									X									X										

NOTES

* Unless loaded on separate nonadjacent 463L aircraft pallets, acids, or other corrosive liquids must not be loaded with flammable solids, oxidizers, ammunition, for cannon without projectiles rocket motors or propellant explosives.

^b Explosives Class A, and Explosives Class B must not be loaded or stored with chemical ammunition containing incendiary charges or white phosphorous either with or without bursting charges.

^c Does not include blasting agents, or ammonium nitrate fertilizer grade, which may be loaded and transported with high explosives or with bursting caps, electric blasting caps and detonating primers.

^d Fissile Class III cargo shall not be loaded on the same aircraft with any other hazardous materials.

^e Normal uranium, depleted uranium, and thorium metal in solid form may also be loaded and transported with articles named on vertical and horizontal columns 1, 2, 3, 4, 5, 6, and 7.

^f Charged electric storage batteries must not be loaded in the same aircraft with any Class A explosive.

^g Cyanides or cyanide mixtures must not be loaded or stored with corrosive materials.

^h Gas identification sets may be loaded and transported with all articles named except those in column 3.

ⁱ Nitric acid, when loaded in the same aircraft with acids or other corrosive material in carboys, must be separated from the other carboys.

^j Other hazardous articles, exempt from labeling requirements of this manual may be loaded and transported with all other articles except as provided in notes a and f through i above.

^k When material has not been drained and purged and fuel is in the system, it will be loaded and transported as a flammable liquid, L/S Group 18.

CONTAINER SPECIFICATIONS

DOT Specification	DOT Section	Federal and Military Specifications	DOT Title of Specification
1A	178.1	PPP-B-585, PPP-B-621	Boxed carboys.
1B	178.2	none	Boxed lead carboys.
1C	178.3	none	Carboys in kegs.
1D	178.4	PPP-B-621, PPP-B-601	Boxed glass carboys.
1E	178.7	MIL-D-112	Glass carboys in plywood drums.
1EX	178.6	MIL-D-112	Glass carboys in plywood drums.
1H	178.13	none	Polyethylene carboys in low carbon steel of equivalent metal crates.
1K	178.14	none	Glass carboys cushioned with expandable polystyrene in wooden wirebound box outside container.
1X	178.5	PPP-B-601, PPP-B-621	Boxed carboys, 5 to 6½ gallons, for export only.
2A	178.20	MIL-C-38756	Inside containers; metal cans, pails and kits.
2C	178.22	PPP-B-636, Type CF-DW 275	Inside containers, corrugated fiberboard carton.
2D	178.23	UU-S-48	Inside containers, duplex paper bags.
2F	178.25	PPP-C-96	Inside metal containers and liners.
2G	178.26	MIL-C-3955 MIL-C-12804	Inside containers, fiber cans and boxes.
2J	178.28	PPP-B-1055	Inside containers, waterproof paper bags for linings.
2K	178.29	none	Inside containers, paper bags for lining.
2L	178.30	none	Lining for boxes.
2M	178.31	none	Waterproof paper lining.
2N	178.32	none	Inside containers, metal can.
2P	178.33	none	Inside nonrefillable metal containers.
2Q	178.33A	none	Inside nonrefillable metal containers.
2R	178.34	none	Inside metal containers, metal tubes.
2S	178.35	MIL-D-40030, Styles A and B	Polyethylene containers.
2SL	178.35a	PPP-C-569	Molded or thermoformed polyethylene container.
2TL	178.27	none	Polyethylene container.
2T	178.21	none	Polyethylene container.
2U	178.24	none	Molded or thermoformed polyethylene containers having rated capacity of over 1 gallon, removable head containers, etc.
3A	178.36	MIL-C-7905, MIL-C-11732	Seamless steel cylinders, or 3AX; seamless steel cylinders of capacity over 1,000 pounds water volume.
3AA	178.37	RR-C-901, MIL-C-11732, MIL-C-7905.	Seamless steel cylinders made of definitely prescribed steels or 3AAX; seamless steel cylinders made of definitely prescribed steels of capacity over 1,000 pounds water volume.
3B	178.38	none	Seamless steel cylinders.
3BN	178.39	none	Seamless nickel cylinders.
3C	178.40	none	Seamless steel cylinders.
3D	178.41	none	Seamless steel cylinders.
3E	178.42	none	Seamless steel cylinders.
3A 480X	178.43	none	Seamless steel cylinders.
3HT	178.44	none	Inside containers, seamless steel cylinders for aircraft use made of definitely prescribed steel.
4	178.48	non	Forge-welded steel cylinders.
4A	178.49	none	Forge-welded steel cylinders.
4AA 480	178.56	MIL-C-11733	Welded steel cylinders made of definitely prescribed steels.
4B	178.50	RR-C-910	Welded and brazed steel cylinders.
4BA	178.51	none	Welded or brazed steel cylinders made of definitely prescribed steels.
4B-240-ET	178.55	none	Welded and brazed cylinders made from electric resistance welded tubing.
4B-240-FLW	178.54	none	Welded or welded and brazed cylinders with fusion-welded longitudinal seam.

NOTE: For additional metal drums authorized see para 1-2c. Also see para 1-2 for container specifications that are not acceptable.

minute intervals until no bubbling occurs on application. Let remain on surface for 5 minutes.

f. Remove neutralized wastes with mop or by flushing into sewage system, when authorized.

g. Rinse with water and dry all surfaces.

h. Open all inaccessible areas, apply absorbent material, and neutralize as explained in paragraphs a through g, as applicable.

i. Dispose of absorbent material and neutralized wastes as directed by the installation's civil engineer.

Method (5)

a. Remove all absorbed material, using a hard-bristled brush. If no absorbent material was specified, proceed to para b.

b. Apply an aqueous solution containing 1 percent Iodine and 5 percent Potassium Iodide. Let remain on surfaces for 5 minutes.

c. Remove wastes by absorbing sand or diatomaceous earth (or by flushing into sewage system, when authorized).

d. Apply 5% Sodium Thiosulphate Solution and let it remain on all surfaces for 5 minutes.

e. Remove with cloth, mop or by flushing into sewage system, when authorized.

f. Rinse area with water and dry all surfaces.

g. Open all inaccessible areas, apply absorbent material, and neutralize as explained in paragraphs a through f, as applicable.

h. Dispose of absorbed and neutralized wastes as directed by the installation's civil engineer.

Method (6)

a. Recover spilled mercury using a mercury sweeper (available from chemical supply houses) or a water-wetted paint brush and pan. Place recovered mercury in an air-tight steel, or an air-tight (suitably cushioned) glass container.

b. Decontaminate unrecoverable mercury with sulfur or calcium polysulfide.

c. Cleanup personnel will use the Universal Gas Mask or Self-Contained Breathing Unit. If the cleanup operation is likely to be prolonged for more than 1 hour, or if the area is poorly ventilated, use the self-contained breathing unit.

Method (7)

a. Remove all absorbed material using a hard-bristled brush. If no absorbent material was specified, proceed to paragraph b.

b. Neutralize the residue by applying a 20 percent aqueous solution of sodium bicarbonate.

c. Reapply sodium bicarbonate until all bubbling ceases.

d. Wash and remove all residue with a rag or sponge saturated with P-D-680, Type II solvent.

e. Dispose of absorbent material and neutralized wastes as directed by the installation's civil engineer.

★ Table of Equivalents

Volume:

1 fluid dram	3.697 milliliters, 0.226 cubic inches
1 fluid ounce	29.573 milliliters, 1.805 cubic inches
1 pint	0.473 liters, 28.875 cubic inches
1 quart	0.946 liters, 57.75 cubic inches
1 gallon	3.785 liters, 231. cubic inches, 3.785 kilograms
1 liter	1.057 quarts, 61.025 cubic inches, 33.815 fluid ounces
1 cubic foot	28.32 liters, 7.481 gallons, 1728 cubic inches
1 cubic meter	1000 liters, 35.31 cubic feet, 264.2 gallons

Weight:

1 ounce	16 drams, 28.35 grams, 437.5 grains, 0.0625 pounds
1 pound	453.59 grams, 7000 grains, 16 ounces, 256 drams
1 dram	27.343 grains, 1.77 grams, 0.0039 pounds
1 grain	0.0648 grams, 64.80 milligrams, 0.0001428 pounds
1 milligram	0.016 grains
1 gram	15.432 grains, 0.03527 ounces avoirdupois, 0.0022 pounds
1 kilogram	2.205 pounds avoirdupois, 35.274 ounces

Length:

1 inch	2.54 centimeters, 25.4 millimeters
1 foot	30.48 centimeters
1 centimeter	0.3937 inches
1 meter	3.28 feet, 39.37 inches

Temperature Conversion Formulae:

$$\frac{F - 32}{180} = \frac{C}{100} \quad K = C + 273 \text{ (Absolute)}$$

C = Centigrade, F = Fahrenheit, K = Kelvin

Metric Prefixes:

Deci	0.1
Centi	0.01
Milli	0.001
Micro	0.000001
Nano	0.000000001
Pico	0.000000000001
Deca	10
Hecto	100
Kilo	1000
Mega	1000000
Giga	1000000000
Tera	1000000000000

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AFISC Regulation 120-1	Operations and Procedures

DEPARTMENT OF THE AIR FORCE
Headquarters US Air Force
Washington DC 20330

AF REGULATION 161-16

(Date)

Aerospace Medicine

CONTROL OF RADIOACTIVE MATERIAL

This regulation establishes Air Force policy for using radioactive material and specifies procedures for obtaining authorization for the receipt, possession, distribution, use, transfer, and disposal of radioactive material. It does not apply to radioactive materials transferred from the Department of Energy (DOE) to the Department of Defense (DOD) as components of nuclear weapon systems, and certain components of weapons delivery systems. This regulation is affected by the Privacy Act of 1974. The authority for maintaining and collecting the information required by this regulation is Public Law 91-513 and Executive Order 599.

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1. Terms Explained.

a. Accelerator-Produced Material. Radioactive material produced as the result of the operation of a particle accelerator.

b. ALARA. The ALARA concept (As Low As Reasonably Achievable) is that set of management and administrative actions taken to reduce personnel exposures to as low as possible consistent with existing technology, cost, and operational requirements.

c. Air Force Broad Scope License. A single license issued by the Nuclear Regulatory Commission (NRC) to the USAF Radioisotope Committee delegating control authority for a variety of byproduct, source, and certain quantities of special nuclear material used in the Air Force.

d. 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 special nuclear material.

e. Byproduct Material. Radioactive material (except source and special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing source or special nuclear material.

f. Committee Approval. Authorization from the USAF Radioisotope Committee for non-Air Force organizations to use and/or transport radioactive materials on Air Force installations.

g. Exclusive Federal Jurisdiction. Property under the exclusive control and/or ownership of the Federal government.

h. FADED GIANT. A code name for a nuclear power system or minor radioactive source mishap as defined in AFR 127-4.

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i. Human Use. The internal administration of radioactive materials, or the external administration of ionizing radiation from radioactive materials, to humans.

j. License. NRC or Agreement State authorization to receive, possess, use or transfer byproduct, source, or special nuclear material. Title 10, Chapter 1, Code of Federal Regulations (CFR), Parts 30-36, 40, and 70 explain NRC licenses in detail. Licenses are of two types-general and specific:

(1) General License. A license, published in Title 10 CFR or Agreement State Regulations, that is effective without any requirement to send a written license application, or is effective to any applicant upon registration with the NRC or an Agreement State.

(2) Specific License. A formal written license issued by the NRC or Agreement State to a named applicant who has filed written application authorizing receipt, acquisition, ownership, possession, use, transfer, and disposal of any chemical or physical form of radioisotope specified in the license. This license has an expiration date but may be renewed upon application to the issuing authority. Such a license may be of limited or broad scope, e.g., authorize only certain radioisotopes or allow use of a wide variety of sources without regard to radioisotopes or form.

k. Misadministration. For the purpose of this regulation, misadministration shall mean administration to humans of:

(1) A radiopharmaceutical or radiation from a sealed source other than the one intended;

(2) A radiopharmaceutical or radiation to the wrong patient;

(3) A radiopharmaceutical or radiation by a route of administration other than that intended by the prescribing physician;

(4) A diagnostic dose of a radiopharmaceutical differing from the prescribed dose by more than 50 percent;

(5) A therapeutic dose of a radiopharmaceutical differing from the prescribed dose by more than 10 percent; or

(6) A therapeutic radiation dose from a sealed source such that errors in source calibration, time of exposure, and treatment geometry result in a calculated total treatment dose differing from the final prescribed total treatment dose by more than 10 percent.

1. Naturally Occurring Radioactive Material. Radioactive material that occurs in nature. Such material does not include naturally occurring source or special nuclear material.

m. Nuclear Reactor. A device in which a fission chain reaction can be started, maintained, and controlled.

n. Nuclear Regulatory Commission (NRC). An agency established by Title II of the Energy Reorganization Act of 1974 (Pub. L. 93-438) to regulate byproduct, source, and special nuclear materials as provided for by the Atomic Energy Act of 1954 and Pub. L. 93-438. Within the NRC, final authority rests with the five member commission acting as a body.

o. Particle Accelerator. A device that, for experimental or other purposes, accelerates charged particles to produce a beam of high energy radiation and which may be used to produce radioisotopes.

p. Radiation Protection Officer (RPO). An individual designated by the Commander to manage radiation protection programs. Individuals designated as

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RPO for programs involving radioactive materials for which a USAF Radioactive Material Permit is required must be approved by the USAF Radioisotope Committee. The RPO provides consultation and advice on the hazards associated with radiation and effectiveness of measures to control these hazards. The individual should be the most technically qualified person available and shall have specific education, military training, and/or professional experience to assure a capability commensurate with the assignment. Normally one of the following personnel will be the RPO: Health Physicist (AFSC 9176); Bioenvironmental Engineer (AFSC 9125/9116); Bioenvironmental Engineering Technician (AFSC 907X0) with special experience identifier (SEI) 492; or other persons deemed qualified by the USAF Radioisotope Committee. The term "Radiation Protection Officer" is a functional title and is not intended to denote a commissioned status or job classification in the Air Force.

q. SAFE HAVEN. An agreement between the Department of Defense (DOD) and Department of Energy (DOE) whereby classified material in transit may be provided security opportunities at DOD facilities.

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

s. Special Nuclear Material (SNM). Plutonium, uranium-233, uranium enriched in the isotope 233 or in the isotope 235, and any other material that the NRC determines to be special nuclear material. Special nuclear material does not include source material.

t. USAF Radioactive Material Permit. Written authorization from the USAF Radioisotope Committee for Air Force organizations to receive, possess, distribute, use, transfer, or dispose radioactive materials.

u. USAF Radioisotope Committee (or the Committee). A committee established to coordinate the administrative and regulatory aspects of licensing, possession, distribution, use, transfer, and disposal of all radioactive material in the Air Force except that transferred from DOE to DOD in nuclear weapon systems and certain components of weapons delivery systems. It acts as the single point of Air Force contact with the NRC or Agreement States on all aspects of licensing. The Committee provides recommendations to the Surgeon General on uses of radioactive material, exposure to ionizing radiation, and the control of ionizing radiation hazards.

v. Title 10, Chapter 1, Code of Federal Regulations (10 CFR). The rules and regulations promulgated by the NRC to control the licensing and use of byproduct, source, and special nuclear material, commonly abbreviated 10 CFR XX.X, for example, 10 CFR 20.1.

w. 91B Material. Radioactive material exempted from NRC licensing controls under Section 91 of the Atomic Energy Act in the interest of national defense.

2. Regulatory Authority for Radioactive Material.

a. Regulatory Authority of the Nuclear Regulatory Commission (NRC):

(1) The Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974 (Pub. L. 93-438) gives the NRC the authority to regulate byproduct, source, and special nuclear materials, except that which has been exempted

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under Section 91 of the Atomic Energy Act. The NRC's regulatory authority extends to the United States, its possessions and territories, and Puerto Rico. Regulations issued and enforced by the NRC are in 10 CFR 0-170.

(2) Federal agencies, and installations under exclusive Federal jurisdiction, are subject to NRC regulatory authority. Within an Agreement State and where an installation is not under exclusive Federal jurisdiction, the State maintains regulatory authority over non-Federal activities.

b. Regulatory Authority of the US Air Force. The Air Force has assumed, or been delegated by the NRC through the issuance of a broad scope license, regulatory authority for the receipt, possession, distribution, use, transfer, and disposal of the following on Air Force installations:

(1) Byproduct, source, and certain quantities of special nuclear material. Special nuclear materials used in reactor applications and which have not been designated as 91B material remain under NRC licensing control.

(2) Naturally occurring radioactive material.

(3) Accelerator produced radioactive material.

(4) Byproduct, source, or special nuclear material generally licensed by the NRC pursuant to 10 CFR 30, 10 CFR 31, 10 CFR 35, 10 CFR 40, and 10 CFR 70.

(5) Radioactive material designated as 91B material.

3. Policy on Use of Radioactive Material in the Air Force.

a. The use of radioactive material will be minimized consistent with Air Force requirements. Practical, nonhazardous substitutes shall be procured and used when possible. Radium shall not be procured or used until it has been

established that a nonradioactive substitute or a less hazardous radioactive substance cannot feasibly be used. Strict accountability of radioactive material will be maintained in accordance with the provisions of this regulation and the Air Force Broad Scope License. Use of radioactive material will be limited to those personnel qualified by virtue of training and experience. Exposure to ionizing radiation will be maintained as low as reasonably achievable (ALARA). All use of radioactive material will be in accordance with this regulation, AFR 67-8, AFR 71-4, AFR 122-15, AFR 122-16, AFR 127-4, AFR 160-132, AFR 161-8, AFR 169-6, and the policies and standards quoted or referenced therein. Additional guidance may be found in T.O. 00-110N-2, T.O. 00-110N-3, and other end item technical orders.

b. All Air Force facilities or operations outside the United States, and its possessions and territories must comply with the laws and regulations of the host country with respect to import, export, control, and disposal of radioactive material unless specifically exempted by the host country in a Status of Forces Agreement or similar. Procedures observed by Air Force organizations must be no less stringent than the policies or standards quoted or referenced in Air Force directives.

4. Air Force Responsibilities for Controlling Radioactive Material.

a. The Surgeon General (HQ USAF/SG): The Director of Professional Services (HQ USAF/SGP), acting for the Surgeon General:

(1) Establishes Air Force policy on control of ionizing radiation hazards and establishes limits for personnel exposure to ionizing radiation.

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(2) Maintains the USAF Radioisotope Committee to coordinate the administrative and regulatory aspects of all radioactive material in the Air Force except that transferred from DOE to DOD as components of nuclear weapons, and certain components of weapons delivery systems.

b. The USAF Radioisotope Committee (HQ USAF/SGP) provides technical review and exercises administrative controls to ensure that the receipt, possession, distribution, use, transfer and disposal of radioactive materials are in accordance with the provisions of the Air Force Broad Scope License, Title 10 CFR, and other Air Force and Federal directives. The Committee provides recommendations on the use of radioactive materials, exposure to ionizing radiation, and the control of ionizing radiation hazards to the Surgeon General. (See paragraph 5.)

c. The Inspector General (HQ USAF/IG):

(1) Director of Medical Inspection, Air Force Inspection and Safety Center (AFISC/SG), implements inspection programs to assess compliance with the requirements of this regulation, the conditions of USAF Radioactive Material Permits issued by the Committee, the Air Force broad scope license, applicable Air Force directives, and Title 10 CFR. AFISC/SG provides copies of inspection schedules, inspection results, and investigation reports to the USAF Radioisotope Committee.

(2) Director of Nuclear Surety, Air Force Inspection and Safety Center (AFISC/SN), implements inspection and oversight programs to assess systems safety, criticality, and security of radioactive material as components of nuclear weapons, certain components of weapons delivery systems, and reactor applications. AFISC/SN also provides consultation to the USAF Radioisotope Committee as necessary on nuclear surety issues.

d. Air Force Systems Command (AFSC):

(1) Minimizes the use of radioactive materials consistent with Air Force requirements. Does not procure or use radium until it has been shown that a nonradioactive substitute or a less hazardous radioactive substance cannot feasibly be used (AFR 67-8).

(2) Establishes life cycle controls, to include ultimate disposal, for each commodity containing radioactive material as early as possible in the design and development stage (AFR 67-8).

(3) Designs radiation sources to meet applicable American National Standards Institute (ANSI) standards where practical and to minimize exposures to personnel.

(4) Procures radiation sources conforming to applicable ANSI standards when practical.

(5) Incorporates requirements of AFR 127-8, Responsibilities for USAF System Safety Engineering Programs, and MIL-STD-882B, Systems Safety Program Requirements, to ensure that safety, consistent with the mission requirements for the source of ionizing radiation being developed, is designed into the system at the earliest possible stage of the system life cycle.

(6) Provides Air Force Logistics Command (AFLC) technical and safety data developed during Research, Development, Testing, and Evaluation (RDT&E) on items transitioning to AFLC program management responsibility in a timely fashion to allow proper operational controls and directives to be developed for each item.

(7) Ensures that USAF Radioactive Material Permit requirements are complied with during RDT&E and that AFLC is told of any USAF Radioactive

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Material Permit requirements before Program Management Responsibility Transfer (PMRT). This is to allow AFLC and using commands to obtain their USAF Radioactive Material Permits in a timely manner. USAF Radioactive Material Permits, as applicable, must be obtained before awarding procurement contracts (AFR 67-8).

e. Air Force Logistics Command (AFLC):

(1) Incorporates applicable ANSI standards and other features which will reduce potential for exposure of personnel into design of radiation sources where practical.

(2) Procures radiation sources conforming to applicable ANSI standards when practical.

(3) Conducts a system safety program in accordance with AFR 127-8 to ensure that safety, consistent with the mission requirements for any ionizing radiation source being modified, is fully considered. Technical orders, handbooks, and other publications must be updated to reflect any changes in operational and maintenance safety procedures.

(4) Incorporates systems safety and health requirements for the protection of personnel in all contracts awarded for the operation, modification, and repair of ionizing radiation sources (MIL-STD-882B).

(5) Makes sure that USAF Radioactive Material Permit requirements for items containing radioactive materials and for which AFLC has program management responsibility are complied with. Ensures that USAF Radioactive Material Permits, as applicable, are obtained before awarding procurement contracts (AFR 67-8). Minimizes the use of radioactive materials consistent with Air Force needs. Procures radium only when it is shown that a nonradioactive or a less hazardous radioactive substance cannot feasibly be used.

(6) Makes sure proper life cycle controls, including ultimate disposal, are established for each commodity containing radioactive material.

(7) Negotiates and maintains requirements type contracts with radioactive waste disposal contractors and acts as the coordinating agency between field activities and the Air Force disposal contractors in all matters relating to radioactive waste disposal (T.O. 00-110N-2). Maintains detailed records of radioactive materials disposed and provides a copy of these records to the USAF Radioisotope Committee on a semiannual basis (each June and December).

(8) Determines the degree and method of control and accountability, with the consultation of the USAF Radioisotope Committee, for each specific radioactive commodity at the time of entry into the Air Force inventory. Obtain USAF Radioactive Material Permit(s) for item managers as necessary (see paragraph 6 and 7 below).

(9) Maintains an inventory management system which provides strict accountability of designated radioactive materials throughout their life cycle. Provides semiannual reports (each June and December) of the status of radioactive commodities in the Air Force inventory to the USAF Radioisotope Committee.

(10) Develops policies and procedures for the safe transportation of radioactive materials. When applicable, policies and procedures will be consistent with the requirements of Title 49, Code of Federal Regulations (49 CFR).

f. The USAF Occupational and Environmental Health Laboratory (USAF OEHL):

(1) Provides consultation and laboratory services in all aspects of radiological health in accordance with AFR 161-17. Similar services are available from OL-AD within PACAF.

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(2) Maintains the Air Force Radiation Assessment Team (AFRAT) for response to radiological incidents in accordance with AFR 355-1.

g. USAF Regional Medical Center Wiesbaden/SGB: Provides consultation and laboratory services in aspects of radiological health for USAFE.

h. Commander at each Echelon:

(1) Shall ensure that the personnel of his or her command who receive, possess, distribute, use, transfer, or dispose radioactive material:

(a) Obtain the proper authorization under the provisions of this regulation, T.O. 00-110N-3, and AFR 169-6 (if applicable).

(b) Observe the applicable radiation protection standards in AFR 160-132, AFR 161-8, and Title 10 CFR.

(c) Comply with the applicable posting and notification requirements of this regulation, AFR 127-4, and 10 CFR 20.

(2) Shall ensure that non-Air Force organizations using or transporting radioactive materials on Air Force installations obtain Committee Approval under the provisions of this regulation.

i. Radiation Protection Officer (RPO): Individuals designated as Radiation Protection Officer shall ensure that the receipt, possession, use, transfer and disposal of radioactive materials are in accordance with the specific conditions of a USAF Radioactive Material Permit or Committee Approval.

j. Individuals: Individuals who are assigned duties involving radioactive material shall comply with the provisions of the USAF Radioactive Material Permit under which they operate and the directives referenced in paragraph 3a above.

5. The USAF Radioisotope Committee.

a. The USAF Radioisotope Committee shall consist of:

(1) Voting members:

(a) Director of Professional Services (HQ USAF/SGP) or his designated representative (Chairman).

(b) The Executive Secretary (a fully qualified health physicist).

(c) A representative of the Surgeon General's Aerospace Medical Consultants Division (HQ USAF/SGPA, radiation policy).

(d) A representative of DCS/Plans and Operations (HQ USAF/XD).

(e) A representative of DCS/Logistics and Engineering (HQ USAF/LE).

(f) A representative of DCS/Research Development and Acquisition (HQ USAF/RD).

(g) A representative of the Inspector General (HQ USAF/IG).

(h) A representative of the Judge Advocate General (HQ USAF/JA).

(i) Other technical representatives as necessary to support Committee affairs.

(2) Nonvoting members: Individuals having specialized expertise such as radiopharmacy, reactor design, etc., may periodically be invited to provide information and assist in Committee deliberations on a particular subject.

b. The USAF Radioisotope Committee shall:

(1) Provide administrative control of all radioactive material used in the Air Force except for nuclear weapon systems and certain components of weapons delivery systems.

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(a) Review all requests for use of radioactive material and issue USAF Radioactive Material Permits to Air Force organizations or Committee Approval to contractor organizations.

(b) Review the training and experience of designated Radiation Protection Officer(s) and individuals who use or supervise the use of radioactive material for which a USAF Radioactive Material Permit is required.

(c) Prescribe special conditions that will be required during the receipt, possession, use, transfer, and disposal of radioactive material.

(2) Interface with the Directorate of Nuclear Surety (AFISC/SN) and the Terrestrial Nuclear Reactor Systems Surety Group (TNRSSG) on the radiological health aspects of aerospace (AFR 122-16) and reactor (AFR 122-14, AFR 122-15) applications of radioactive material.

(3) Act as the Air Force single liaison with the NRC or Agreement States on all aspects of licensing.

(4) Serve as the licensee for the Air Force broad scope license issued by the NRC.

(5) Provide recommendations to the Surgeon General (HQ USAF/SG) for implementation of policy with respect to the use of radioactive material, exposure to ionizing radiation, and control of ionizing radiation hazards.

(6) Provide response to special emergencies or incidents as necessary and conduct field visits in accordance with the provisions of the Air Force Broad Scope License.

(7) Provide consultation services on the administrative aspects of permitting radioactive material. Consultative services shall include interpretation of the intent this regulation, specific conditions of licenses issued

to the Committee or USAF Radioactive Material Permits, and in conjunction with HQ USAF/SGPA, radiation safety policy as related to ionizing radiation.

(8) Review the Air Force radiation safety program with respect to the use of radioactive materials at least annually to ensure compliance with Air Force and Federal directives and to recommend corrective action for any deficiencies identified.

(9) Maintain permanent records of all NRC licenses, USAF Radioactive Material Permits, and Committee Approvals.

(10) Meet as often as necessary to conduct business but not less than once in each calendar quarter.

c. The Executive Secretary, assisted by his/her staff, and acting for the Committee, shall:

(1) Review and approve requests for use of radioactive material of a routine nature.

(2) Conduct routine correspondence of the Committee as necessary to accomplish Committee affairs and maintain records of such actions.

(3) Act as the contact between the Committee and the NRC or Agreement States.

(4) Conduct field visits in accordance with the provisions of the Air Force Broad Scope License, or respond to incidents as necessary.

(5) Prepare an annual summary of the Air Force radiation safety program with respect to the use of radioactive materials for Committee review.

(6) Implement recommendations of the Committee regarding the use of radioactive materials, exposure to ionizing radiation, and the control of ionizing radiation hazards.

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6. When Authorizations Are Required.

a. A USAF Radioactive Material Permit, valid for three year intervals, is required by Air Force organizations for the receipt, possession, distribution, use, transfer, and disposal of byproduct, source, special nuclear material, naturally occurring radioactive material, or accelerator produced radioactive material unless specifically exempted by the USAF Radioisotope Committee. A USAF Radioactive Material Permit is not required for:

(1) Items containing exempt quantities of radioactive material or for items specifically exempted by 10 CFR.

(2) Certain specifically or generally licensed items exempted by the Committee and specified in T.O. 00-110N-3. The exemptions specified in T.O. 00-110N-3 do not apply to distribution activities.

(3) Nuclear weapons and certain components of weapons delivery systems.

(4) Reactor fuel elements and sources inherent to reactor operations, such as neutron startup sources, and which have been designated as 91B material. The approval for possession and use of such material is delegated to the Terrestrial Nuclear Reactor Systems Surety Group (TNRSSG). This exemption does not apply to ancillary support sources, such as calibration sources, etc., which are not designated as 91B material.

b. Approval from the USAF Radioisotope Committee is required for all non-Air Force organizations to use or transport radioactive material on Air Force installations. This includes activities conducted by the DOE or DOE prime contractors which are normally exempted from NRC license controls but does not include DOE activities related to SAFE HAVEN requirements.

7. Obtaining Authorizations.

a. Submission of Requests. All requests for authorizations should be submitted through host base medical channels to the Executive Secretary, USAF Radioisotope Committee, HQ AFOMS/SGPA, Brooks AFB TX 78235. Licensing forms, regulatory guides, and assistance on the administrative aspects of obtaining authorizations, if necessary, may be requested from the Executive Secretary. Operations involving new or unique applications of radioactive material are encouraged to contact the Executive Secretary for assistance or evaluation of the operation, such as preliminary review of draft applications or onsite visits, as early as possible to avoid delays in final applications.

(1) Initial applications and requests for renewal of existing authorizations must be received by the Executive Secretary at least 30 days prior to the anticipated commencement of activities or expiration of existing authorization. At least two copies, in their entirety, must be received by the Executive Secretary. Renewal requests should be made without reference to previously submitted material.

(2) Amendment requests, identifying interim changes, should be submitted in letter form identifying only the requested change and any necessary supporting information. At least two copies, in their entirety, must be received by the Executive Secretary.

b. Air Force Organizations.

(1) Stocklisted and/or generally licensed items:

(a) Distribution activities. AFLC item managers possessing and/or distributing radioactive commodities will submit applications in letter form and include:

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1 Manufacturer(s), noun and National Stock Number (NSN), if applicable, of radioactive items and NSN of major end item if a component part; radioisotope and activity per device; proposed use; and available end item technical orders.

2 Organization and identity of individual(s) who will distribute, or supervise the distribution of, radioactive items.

3 Procedures established to ensure accountability of radioactive items and compliance with this regulation and AFR 67-8.

(b) Using activities. Organizations possessing and using radioactive items for which a USAF Radioactive Material Permit is required, should submit applications in letter form and include:

1 Noun and National Stock Number (NSN), if applicable, of the radioactive items including NSN of major end item if a component part; the radioisotope and activity; the number of items required; and the proposed use.

2 Name and shipping address of the applicant and using organization.

3 Shipping document number or accountability number and supplementary address.

4 Identity of individuals who will use, or supervise the use of, the radioactive item.

5 Name of assigned Radiation Protection Officer (RPO).

6 Qualifications of users/supervisors and RPO to include formal training and radioisotope handling experience. Experience should include radioisotopes handled; maximum quantities of each radioisotope; type of use; duration of experience; and where experience was obtained.

7 Procedures and security which will be observed to minimize hazards from handling, storage, and disposal of radioactive item.

8 Personal dosimetry to be utilized and supplier.

9 Equipment and radiation detection instrumentation available to support proposed use.

10 A description of the facilities where radioactive items will be used and/or stored, including a sketch of the facility identifying adjacent areas of use. The measured, or anticipated, radiation levels in unrestricted areas should be indicated. Facilities descriptions should be supported by photographic documentation when possible.

(2) Non-stocklisted and/or specifically licensed material:

(a) Byproduct, accelerator produced, or naturally occurring radioactive material. Requests should be submitted on NRC Form 313, Application for Material License, and supplemented as necessary. Guidance for preparing applications is indicated below:

1 General industrial applications. Due to the variety of industrial uses, no single NRC Regulatory Guide can be specified. The USAF Radioisotope Committee should be consulted for assistance in determining the appropriate guide(s) for a particular application.

2 Radiography applications. NRC Regulatory Guide 10.6, "Guide for the Preparation of Applications for Use of Sealed Sources and Devices for Performing Industrial Radiography" should be utilized in preparing applications.

3 Medical applications. NRC Regulatory Guide 10.8, "Guide for the Preparation of Applications for Medical Programs," should be used for

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nuclear medicine applications. The Regulatory Guide, "Guide for the Preparation of Applications for Licenses in Medical Teletherapy Programs," should be used for teletherapy applications. Medical applications involving the administration to humans of non-FDA approved radiopharmaceuticals, or FDA approved radiopharmaceuticals for unlabelled purposes, must have the procedure(s) perviously approved by the USAF Surgeon General's Clinical Investigation Committee in accordance with AFR 169-6.

(b) Source material applications. Requests involving the processing (machining, grinding, etc.) of source material should utilize Form 313 and Regulatory Guide 10.4, "Guide for the Preparation of Applications for Licenses to Process Source Material". The USAF Radioisotope Committee should be consulted on additional appropriate regulatory guides for the use of source material.

(c) Special nuclear materials (SNM) applications. Requests should be submitted in letter form and should include at least the following:

- 1 Name and address of the applicant.
- 2 The activity for which the material will be used; the general plan for conducting the activity; and the location of the activity.
- 3 The name, amount, and specifications (chemical and physical form, isotopic content) of the SNM.
- 4 Technical qualifications, including training and experience, of personnel engaged in the use of SNM and the designated RPO.
- 5 Radiation detection equipment available to support proposed activities.
- 6 Personal dosimetry to be utilized and supplier.

7 Description of the equipment and facilities which will be used to protect health and minimize hazard to life or property. Facilities descriptions should be supported by photographic documentation when possible.

8 A description of the radiation protection program indicating proposed procedures to protect health and minimize danger to life or property.

(d) Organizations requesting combinations of byproduct, source, or SNM may consolidate requests into a single application provided any special requirements related to the specific categories of material are addressed. An NRC Form 313 may be utilized and supplemented as necessary. The USAF Radio-isotope Committee must be contacted for prior approval before consolidation.

c. Non-Air Force Organizations. Requests for Committee Approval for non-Air Force organizations to conduct activities on Air Force installations must include at least the following:

- (1) A description of the proposed activities.
- (2) Procedures established to ensure radiological health and safety of Air Force personnel and the public while on Air Force installations.
- (3) A copy of the applicable NRC, or Agreement State license and an approved NRC Form 241 (Report of Proposed Activities in Non-Agreement States). Agreement State licenses are not valid on installations under NRC jurisdiction unless an NRC Form 241 has been submitted and approved by the NRC. An NRC Form 241 limits activities conducted under an Agreement State license to 180 days per calendar year.

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8. Notification of Incidents and Accidents. The Executive Secretary of the USAF Radioisotope Committee shall be notified of accidents/incidents involving radioactive material as indicated below. Significant radiological incidents or accidents may be reportable as a FADED GIANT in accordance with AFR 127-4. Separate notification to the Executive Secretary is not required for incidents or accidents reported as a FADED GIANT.

a. Immediate notification by message:

(1) Any therapeutic misadministration.

(2) Any defect in a radioactive device which presents a hazard to personnel or the environment but which does not meet the criteria for a FADED GIANT as indicated below.

(3) PINNACLE/FADED GIANT (Accidents):

(a) An uncontrolled nuclear reactor criticality resulting in damage to the reactor core or release of fission products from the reactor core to the atmosphere or surrounding environment.

(b) A loss of control of radioactive material which presents a hazard to life, health, or property. This may include loss of control of material which may result in any person in an unrestricted area receiving an annual radiation dose in excess of 0.5 rem per calendar year.

(c) Exposure of the whole body of any individual to 25 rems or more of radiation; exposure of the skin of the whole body of any individual of 150 rems or more of radiation; or exposure of the feet, ankles, hands, or forearms of any individual to 375 rems or more of radiation.

(d) The release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 5,000 times the limits for release to unrestricted areas specified in 10 CFR 20, Appendix B, Table II.

(e) A loss of one working week or more of the operation of any facilities affected.

(f) Damage to property in excess of \$200,000.

(g) Any unexpected event serious enough to warrant the interest or action of officials or agencies outside the Air Force. (See JCS Pub 6, Vol II, Part 2, Chapter 4.) This category includes events having domestic or international implications; those which may cause inquiries by the public or press; and those indicated above.

(4) BEELINE/FADED GIANT (Incidents):

(a) Exposure of the whole body of any individual to 5 rems or more of radiation; exposure of the skin of the whole body of any individual to 30 rems or more of radiation; or exposure of the feet, ankles, hands, or forearms to 75 rems or more of radiation.

(b) The release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 500 times the limits for release to unrestricted areas specified in 10 CFR 20, Appendix B, Table II.

(c) A loss of one day or more of the operation of any facilities affected.

(d) Damage to property in excess of \$2,000.

(e) An inadvertant rupture of a radioisotope power system containment capsule or reactor fuel element which does not qualify as an accident.

(f) Acts of nature or other incidents which pose a serious threat to a nuclear system, e.g., fire, flood, explosion, etc.

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(g) A nuclear reactor, radioisotope power system, or radioactive source event which may result in adverse public reaction, including possible premature release of information.

b. Fifteen (15) day notification:

(1) Any theft or loss of control of radioactive material other than indicated above.

(2) Any diagnostic misadministration.

(3) Any known deviation or failure to comply with the provisions of a USAF Radioactive Material Permit, Air Force directives, or Title 10 CFR.

9. Investigations of Incidents and Accidents. Therapeutic misadministrations will be investigated and reported within 15 days in accordance with 10 CFR 35.42. Accidents/incidents identified in 8a(3)-(4) will be investigated and reported in accordance with AFR 127-4. Notwithstanding the investigational requirements of other Air Force directives, the incidents identified in paragraph 8b will be investigated by the designated RPO in accordance with 10 CFR 20.402, 10 CFR 35.43, and 10 CFR 21.21 as appropriate with a detailed written report forwarded to HQ AFOMS/SGPA, Brooks AFB TX 78235-5000, and HQ AFISC/SGMS, Norton AFB CA 92409, within 45 days following completion of the investigation. Investigations of incidents identified in 8b will be considered complete only upon the concurrence of the USAF Radioisotope Committee and AFISC/SGMS. The USAF Radioisotope Committee or AFISC/SGMS may direct or conduct further investigation as necessary.

10. Records Retention. Records regarding the receipt, possession, use, transfer, and disposal of radioactive materials will be retained as indicated below.

a. Indefinite retention. Microfiched records may be forwarded to the USAF Radioisotope Committee in lieu of local retention following termination of the activity.

(1) Surveys used to determine personnel exposures in the absence of dosimetry.

(2) Records of source or special nuclear material transfers.

(3) Misadministration reports.

(4) Records of radioactive materials released to the sanitary sewer or land disposal of radioactive materials, such as on site burial.

b. Five (5) year retention:

(1) Records indicating the transfer or disposal of byproduct, source, or special nuclear materials following the transfer or disposal of that material.

(2) Records indicating the receipt of source or special nuclear material following the transfer or disposal of that material.

(3) Teletherapy full calibration measurements, and calibration of instruments used to perform teletherapy measurements.

c. Two (2) year retention:

(1) Surveys such as package surveys, area surveys, etc.

(2) Radiography inventories and utilization logs.

(3) Records of receipt of byproduct material.

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d. One (1) retention:

(1) Leak test results following performance of the leak test.

11. Inspection and Enforcement. Each organization issued a USAF Radioactive Material Permit will be periodically inspected to assess compliance with the provisions of the USAF Radioactive Material Permit, the Air Force Broad Scope License, and Title 10 CFR. Compliance inspections will be an integral part of the Health Services Management Inspection (HSMI) conducted by the AFISC/SGMS during the normal 24-30 month inspection interval in accordance with AFR 123-1, AFR 23-15, AFR 20-68, AFISC Regulation 23-1, and AFISC Regulation 120-1. Findings of compliance inspections (AFISC Form 283, Finding Worksheet) will be forwarded to the USAF Radioisotope Committee. NRC regional offices may periodically conduct independent, or concurrent with AFISC/SGMS, compliance inspections.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

CHARLES A. GABRIEL, General, USAF
Chief of Staff

JAMES L. WYATT, JR, Colonel, USAF
Director of Administration

SUMMARY OF REVISED, DELETED, OR ADDED MATERIAL

This revision specifically defines the responsibilities of the USAF Radioisotope Committee (para 5) and revises the procedures to obtain authorization for the possession and use of radioactive material (para 7). It adds new provisions for notification of incidents (para 8), investigation and reporting requirements (para 9), records retention (para 10), and inspection and enforcement (para 11).