BY ORDER OF THE
BASE COMMANDER

GRAND FORKS AIR FORCE BASE
INSTRUCTION 48-103

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Aerospace medicine

IONIZING RADIATION PROTECTION PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFPD 48-1, *Aerospace Medicine Program* and defines guidelines, responsibilities, procedures, and precautionary measures for the control of ionizing radiation sources, consistent with Air Force Occupational Safety and Health (AFOSH) standards. It does not apply to radio frequency or laser radiation (non-ionizing radiation) and patient or combat related exposures. Air Force policy is to keep all ionizing radiation exposures As Low as Reasonably Achievable (ALARA). This instruction implements the ALARA concept by establishing a program that incorporates current radiation protection requirements and additional management controls, outlining procedures for the control of ionizing radiation sources and associated hazards to safeguard workers health, while permitting maximum benefits from radiation sources. Compliance with this instruction is mandatory for all Air Force, Air National Guard, and US Air Force Reserve military and civilian personnel, and civilian contractors conducting operations involving ionizing radiation sources.

1. Terms Explained.

1.1. **Ionizing Radiation.** Electromagnetic radiation that may cause ionization within cells or tissues of the body. Alpha, beta, gamma, x-ray and neutron radiations are examples.

1.2. **ALARA Concept.** The As Low As Reasonably Achievable (ALARA) concept is a set of management and administrative actions taken to reduce personal radiation dose to as low as possible consistent with existing technology, COBTS, and operational requirements. The ALARA Concept was developed in response to scientific evidence that suggests that no level of radiation exposure is totally risk-free. While established maximum permissible doses are conservative and offer a low risk of health effects (compared to other hazards of life and occupation) prudent efforts should be made to reduce exposures to the lowest level possible, thereby minimizing potential health risks.

1.3. **Base Radiation Safety Officer (RSO).** An individual appointed by the wing commander to manage the Base Radiation Protection Program. This individual is usually the Base Bioenvironmental

Engineer or a Bioenvironmental Engineering Craftsman [Air Force Specialty Code (AFSC) 4B071] with a special experience identifier (SEI) 492 or senior NCO (AFSC 4B071) with experience subject to approval by the USAF Radioisotope Committee.

1.4. **Unit RSO.** An individual appointed by a unit commander to act as a single unit focal point on radiation protection matters. Each unit that uses, or operates radiation producing devices or materials will appoint, in writing, a unit RSO.

1.5. **Permit or License RSO.** An individual appointed by a unit commander and approved by the USAF Radioisotope Committee or Nuclear Regulatory Commission (NRC). This individual manages the personnel and environmental protection factors related to the use of radioactive materials, for which a specific USAF Radioactive Material Permit or NRC License has been issued.

1.6. **dpm.** Disintegration's per minute.

1.7. **mR/hr.** milliRoegtens per hour.

1.8. **mRem.** milliRoegtens equivalent man.

2. Responsibilities.

2.1. **Installation Commander (319 ARW/CC):**

2.1.1. Establishes control measures to keep ionizing radiation exposures below permissible levels.

2.1.2. Ensures proper disposal of regulated radioactive materials.

2.1.3. Appoints a Base Radiation Safety Officer (RSO); usually the Base Bioenvironmental Engineer, to provide consultation on potential hazards and to perform hazard assessments.

2.1.4. Supports the ALARA concept.

2.2. **The Director of Base Medical Services (319 MDG/CC):**

2.2.1. Oversees required medical examinations and ensures required referral or follow-up examinations for patients.

2.2.2. Ensures all suspected radiation overexposures are investigated and properly documented by Bioenvironmental Engineering Flight (BE) 319 ADS/SGGB, and Public Health Element (PH), 319 ADS/SGGMM.

2.3. **The Base RSO (319 ADS/SGGB):**

2.3.1. Conducts a base-wide radiation protection program that includes surveillance of all ionizing radiation sources.

2.3.2. Assists Unit RSOs as necessary to ensure a comprehensive unit radiation protection program is established.

2.3.3. Performs initial and periodic hazard evaluations of all radiation sources as needed.

2.3.4. Defines health hazards, hazardous areas, and recommends proper control measures to commanders and users.

2.3.5. Has overall administrative responsibility for ensuring proper receipt, use, storage and disposal of radioactive materials.

2.3.6. Compiles and keeps current an inventory of base ionizing radiation sources.

2.3.7. Conducts the Base Thermoluminescent Dosimetry Program. Issues thermoluminescent dosimeters (TLD) and reviews all results. Distributes TLD results to workplace supervisors.

2.3.8. Conducts or arranges for investigations of suspected ionizing radiation overexposures.

2.3.9. Ensures all personnel who use or operate radiation sources are trained.

2.3.10. Ensures annual ALARA training is conducted for all base personnel occupationally exposed to ionizing radiation.

2.4. **Public Health Element (319 ADS/SGGM):**

2.4.1. Prepares and distributes AF Form 190, Occupational Illness/Injury Report, and additional documentation as needed for suspected overexposures.

2.4.2. Provides briefings and health education consultations concerning radiation when requested by the Base RSO.

2.5. **Organizational Commanders owning or using radiation sources or material will:**

2.5.1. Appoint a unit RSO and forward a copy of appointment letter to 319 ADS/SGGB. The appointment letter must be updated upon change of RSO and annually revalidated. Annual validation must be sent to 319 ADS/SGGB.

2.5.2. Enforce radiation protection policies and programs outlined in this instruction.

2.5.3. Ensure suspected ionizing radiation overexposures are reported to 319 ADS/SGGB.

2.5.4. Ensure periodic training is given to workers about radiation hazards, safety procedures, and actions to be taken in event of accidental exposure.

2.6. **Unit RSOs:**

2.6.1. Maintain active liaison with the Bioenvironmental Engineering Flight, (319 ADS/SGGB) and Public Health Element, (319 ADS/SGGM) personnel as point of contact for radiation safety matters.

2.6.2. Coordinate radiation surveys with the 319 ADS/SGGB, Base RSO.

2.6.3. Assist in suspected overexposure investigations.

2.6.4. Ensure all newly assigned personnel whose duties involve ionizing radiation report to 319 ADS/SGGB, the Base RSO for possible entry into the TLD program.

2.6.5. Provide initial/annual ALARA training to personnel assigned ionizing radiation duties and provide a copy of the training roster to the base RSO.

2.7. **Supervisors:**

2.7.1. Develop an operating instruction, which includes at a minimum, procedures to keep radiation exposures As Low As Reasonably Achievable, potential hazards, training requirements, and procedures for reporting suspected overexposures.

2.7.2. Maintain an inventory of all radiation sources showing shipping receipts, quantities on hand, and items disposed. Notify, in writing, Base and Unit RSOs of any changes to equipment, operating parameters or facility design.

2.7.3. Maintain evaluation reports.

2.7.4. Follow operating, storage, disposal, and shipping guidance in this instruction.

2.7.5. Ensure workers are properly trained in safe work practices and are told about specific hazards in their work place and procedures to be followed to avoid hazards.

2.7.6. Ensure suspected overexposures are immediately reported to the Base and Unit RSOs and that persons involved are promptly transported to the medical treatment facility for examination.

2.8. **Workers:**

2.8.1. Protect themselves and fellow workers from possible radiation harm by following procedures for safe work practices given in equipment technical orders and manuals, unit operating instructions (OI), etc.

2.8.2. Ensure required warning signs and safety devices are in place and properly set before beginning work, and that everyone understands procedures and signals to be used for tasks being done.

3. Radioactive Material Permits. Permits are written permission for the use of specific radioisotopes granted by the USAF Radioisotope Committee (RIC). The RIC is the sole Air Force authority to approve and control use, possession, receipt, transfer, and disposal of all radioactive materials for which the Nuclear Regulatory Commission (NRC) has jurisdiction.

3.1. **Permit Procedures:** Applications for new permits, renewals, and amendments, will follow procedures outlined in AFI 40-201 and T.O. 00-110N-3.

3.2. **Applications:** Will be reviewed and approved or disapproved by the RIC. General training and experience required to qualify as a Permit RSO is covered in AFI 40-201. The RIC is the final authority for determining adequacy of individual qualifications. The Base RSO will be the focal point for all permit activities.

3.3. **Inventory/Control Procedures:** A source inventory will be maintained by the user and verified as required by the permit. All permitted radioactive material received, transferred, stored, or disposed of must be annotated on the inventory. The user must perform swipe/leak tests for sources as specified in the Permit. The user maintains results and a copy forwarded to 319 ADS/SGGB. A radiation protection survey will be conducted annually by the Base RSO to ensure permit compliance.

3.4. **Documentation:** Retain records regarding the receipt, use, transfer, and disposal of radioactive materials as directed by AFR 12-50, Volume II. Termination of use and/or permit does not relieve the user of documentation requirements.

3.5. **Loss of Material:** Notification must be made immediately through the Base RSO to the RIC, which will provide the required NRC notification as necessary.

4. Radioactive Material Labeling, Shipment, Receipt, and Storage.

4.1. **Marking and Identification.** All commodities, packages, containers, work, and storage areas containing radioactive material must be identified. Requirements for radioactive material warning labels and placarding are outlined in T.O. 00-110N-3, paragraph 14, T.O. 00-110N-7, paragraph 3, 49 CFR 172.403, Mil –Std 129, Marking for Shipment and Storage.

4.2. **Shipping:**

4.2.1. Commodities containing radioactive material will not be combined with other materials for shipment because radioactive items are designated as hazardous. Use AFM 71-3, DOD 6050.5-4, or contact the Base RSO to determine if a particular commodity contains radioactive material. Items must be shipped according to governing directives of chosen mode of transportation and T.O. 00-110N-3, paragraph 12.

4.2.2. Radiation Level Limitations. Unless otherwise exempted by 49 CFR 173.441-paragraph (b), radioactive materials packaged for shipment will not have radiation levels exceeding 200 mR/hr at any point on the external surface and 10 mR/hr at one meter.

4.2.3. Prior to shipping radioactive commodities the exterior of the package must be surveyed to ensure that there is no radiation levels above the limits stated in paragraph 5.2.2. Contact the Base RSO to have packages surveyed. Proof of survey must be annotated on shipping documents. At a minimum the following information must be documented: name and rank of survey technician, date, radiation levels, locations of readings, and instrument model and serial number.

4.3. **Receiving:**

4.3.1. Upon receipt of any package labeled with a radioactive White I, Yellow II, or Yellow III label, the receiver shall notify 319 ADS/SGGB so that the RSO may perform a survey of the package within 3 hours of receipt of the package on base.

4.3.2. The container should be visually inspected and labeled with AFTO Form 9B. Properly packaged radioactive material should be immediately sent to the using organization or designated storage area as applicable.

4.3.3. If shipments are received damaged, or if seals are broken or tampered with, isolate the container and notify the Base RSO. Discrepancies will be reported as outlined in T.O. 00-110N-3, paragraph 9d.

4.4. **Storage:**

4.4.1. Radioactive materials will be stored in identified areas. All commodities which contain radioactive material will be labeled **IAW T.O. 00-110N-3, paragraph 11 and 14**. Steps must be taken to prevent unauthorized removal of radioactive material. Photographic film will be stored at least 50 feet away from any quantity of any radioactive material.

4.4.2. Unrestricted Storage Area. Does not need to be secured to keep people from having access to parts as long as no more than 100 tubes are stored in any one area and the radiation intensity doesn't exceed 2 mR/hr at one meter from any one container. The Base RSO will perform annual radiation protection surveys in these areas.

4.4.3. Controlled Area: Any area in which radioisotopes are used, stored, and access is controlled for the protection of individuals from radiation. Survey frequency depends on the type of materials stored.

4.4.4. Restricted Storage Area: Radioactive items exhibiting radiation intensities more than 2 mR/hr at one meter from any single storage container (in storage configuration). These items must be stored in a restricted area to prevent unauthorized access. The radiation intensity along the restricted area perimeter must not exceed 2 mR/hr. The Base RSO will perform quarterly radiation protection surveys in these areas.

4.5. **Documentation:** All radiation protection survey reports and swipe sample results must be maintained on file by the using agency and are subject to review by the Base RSO.

5. Radioactive Waste Disposal.

5.1. T.O. 00-110N-2 gives general procedures for disposal of unclassified radioactive waste. Disposal of classified waste will be done on a case-by-case basis IAW a Memorandum of Understanding between the Department of Defense (DOD) and the Department of Energy (DOE).

5.2. The RIC has authority to control administrative and regulatory aspects of licensing, possession, distribution, use, transfer, and disposal of all radioactive material in the Air Force, except for nuclear weapons, reactors and fuel.

5.3. AF Radioactive and Mixed Waste Office (AFRMWO), 2402 E Drive, Brooks AFB, TX, 78235-5114, has overall knowledge and responsibility for disposal of Air Force owned radioactive material. Air Force agency may enter into a radioactive waste disposal contract or agreement without approval of AFRMWO.

5.4. Do not ship radioactive waste unless specifically authorized by AFRMWO. Upon request, they will provide detailed instructions on packaging and shipping of waste for disposal. All requests will be submitted through the Base RSO.

5.5. Radioactive waste generators must coordinate all actions concerning waste disposal through the Base RSO. They also have the responsibility to account for the waste until it is shipped from the base.

5.6. Cargo Movements is responsible for packaging, marking, and labeling waste IAW instructions provided by T.O. 00-110N-2, IERA, or the Base RSO. They are also responsible for ensuring Air Force directives for transporting radioactive material are followed.

5.7. Waste containers used for radioactive waste disposal shipments must be clean, free of corrosion, and be of an approved Department of Transportation (DOT) type.

5.8. **Electron Tube and Spark Gap Disposal.** Section 30.15 of 10 CFR and AFI 40-201 list items that are exempt from licensing requirements and from regulations pertaining to receiving, processing, and disposal. Electron tubes are exempted provided certain levels of activity and measurable radiation as defined in Section 30.15 are not exceeded. Exempted electron tubes should be placed in the original tubes container (or equivalent), with both ends taped, and disposed of as ordinary trash. Do not break or accumulate electron tubes. If breakage should occur, contact the Base RSO; do not attempt clean up.

6. Industrial, Medical, Dental, and Veterinary X-ray Units. All equipment designed to produce x-rays must be monitored for potential worker and public exposure. The Base RSO will maintain an inventory of all such equipment and will perform annual workplace evaluation. IERA, Brooks AFB TX will be contacted to perform radiation protection surveys for initial installations and after major repairs of x-ray equipment.

6.1. **Industrial X-ray Units.** Procedures for non-destructive inspection (NDI) facilities/operations (enclosed and unshielded) will be evaluated as needed by the Base RSO to assure compliance with T.O. 33B-1-1.

6.2. **Medical, Dental, and Veterinary X-ray Units.** The Base RSO will evaluate these units as needed to ensure all safety and the user enforces health precautions.

6.2.1. Testing of Protective Clothing. All medical x-ray leaded gloves, aprons and gonadal shields and all dental x-ray must be x-rayed annually for safety defects by the using agency.

6.2.2. Defective shielding must be removed from use and replaced.

6.2.3. Document the annual inspection in a logbook or by a Memo for Record. The documentation should reflect the local identification number for the item, date of inspection and findings.

7. Base Thermoluminescent Dosimetry Program.

7.1. A monitoring device will be issued to each person who, exclusive of background radiation or medical evaluations, is at risk of exceeding predetermined monitoring levels. Specific risk criteria and exposure levels are outlined in AFI 48-125.

7.2. **Personnel Dosimeters:** The primary monitoring device used in the Air Force for determining occupational exposure to ionizing radiation is the thermoluminescent dosimeter (TLD). The TLD must be worn by an individual while performing any task with significant exposure potential. When not in use, the dosimeter must be kept in a designated storage area as free from radiation as possible and away from excessive heat and moisture. Unless otherwise directed by the Base RSO, the TLD must be worn between the chest and the hips. A whole body TLD should never be worn on the collar; separate collar badges are issued for this purpose. If issued a collar and a whole body badge, both badges must be worn at the same time.

7.3. **TLD Issue:** Workers requiring TLDs must report to 319 ADS/SGGB prior to conducting any duties that involve ionizing radiation.

7.4. **Non-Air Force Employment:** Any member who wears a TLD during non-Air Force employment must ensure that the base RSO receives a copy of their TLD results. All TLD results for Air Force members must be entered in the USAF Master Radiation Exposure Registry maintained by IERA

7.5. **Pregnant Member Policy:**

7.5.1. The supervisor or physician may restrict a pregnant member's duties involving radiation. There is no “blanket policy” to remove from radiation duties. Each pregnancy is handled on a case-by-case basis depending upon exposure potential. The Base RSO is responsible for evaluating potential exposures. NOTE: Civilian workers are not required to declare their pregnancy.

7.5.2. Continue normal duties if it is unlikely the worker will receive a radiation exposure more than 500 mrem during the term of pregnancy (including the period preceding pregnancy confirmation). Positive actions must be taken to limit doses to no more than 50 mRem per month.

7.5.3. Restrict duties contributing to exposures if the worker could receive a total whole body dose during pregnancy exceeding 500 mRem. This may result in total or partial removal from radiation duties.

7.5.4. Pregnant members will be monitored monthly with TLDs.

7.5.5. Pregnant workers who work with high output sources such as medical therapy, industrial radiography, or radioactive materials other than sealed sources, require waiver from HQ USAF/SGPA to continue duties.

7.6. **TLD Action Levels.** The Base RSO will review TLD results for each work area. Action will be taken as described below:

7.6.1. Investigation Action Level. AL Listing 1499 will be reviewed monthly/quarterly. If any person receives a dose in excess of 50 mRem per month, an investigation will be done. The Base RSO will forward a letter to the workplace supervisor requesting information concerning the exposure.

7.6.2. Abnormal Exposure Level. A formal investigation to determine the cause of exposure will be made IAW AFI 48-125. The abnormal exposure level is 417 mRem on a monthly TLD and 1250 mRem on a quarterly TLD.

7.6.3. Overexposure Action Level. Formal investigation and documentation is required for any radiation exposure in excess of the following limits:

7.6.3.1. 50,00 mRem Total Effective Dose.

7.6.3.2. 50,000 mRem Sum of Deep Dose Equivalent and Committed Dose Equivalent for any individual organ or tissue except the eye lens or Shallow Dose Equivalent to skin or extremity.

7.6.3.3. 15,000 mRem Eye Dose Equivalent.

7.7. **TDY for periods of 90 days or less:** Individual will take their dosimeter and a designated transit control dosimeter with them. Upon return from TDY the dosimeters will be turned in at the next exchange interval. At no time will the dosimeter be kept for longer than 6 mos.

7.8. **TDY for periods exceeding 90 days:**

7.8.1. If going TDY to locations with an established dosimetry program the individual will not take their TLD with them, but will receive a TLD at their TDY location. If dosimetry support is provided by other than Air Force then the individual is responsible for ensuring copies of their dosimetry results to the Air Force through IERA. Submit results to base RSO.

7.8.2. If going TDY location without an established dosimetry program individual will receive dosimetry support from their sponsoring organization for the duration of their TDY.

8. Accident and Overexposure Reporting Procedures.

8.1. **All accidents and suspected overexposures to ionizing radiation must be reported to the Base RSO who will initiate action to investigate the alleged incident IAW AFI 48-125.** Investigation results must be documented and filed accordingly.

8.2. **Medical exams will be arranged by the Public Health Element.** All results will be reported to the individual, the workplace supervisor, unit commander, Aerospace Medicine Council, and HQ AMC/SG as appropriates. This investigation is in addition to any unit level investigation.

9. Review of Radiation Facility Plans.

9.1. **Review of Construction and Facility Maintenance.** All plans for modification of facilities or design of new facilities that involve the use of radioactive material or radiation producing devices must be reviewed by the Base RSO to ensure ALARA is considered.

9.2. **Procedures:** The user will notify the Base RSO in writing of all modifications or of plans to buy new equipment. The Base RSO will document all reviews and include recommendations on proce-

dures to prevent overexposure and any ALARA considerations, or contact IERA, Brooks AFB, TX for design reviews beyond base level capability.

10. Guidelines for Contractor Use of Radioactive Material or Ionizing Radiation Sources.

10.1. Prior to any contractor use of radioactive material, the following information must be supplied to the Base RSO:

10.1.1. Evidence of a valid Nuclear Regulatory Commission (NRC) or Agreement State Radioactive Material License. The license must either specifically state the installation by name on the license or state approval for work at temporary job sites anywhere in the United States where the NRC or Agreement State maintains jurisdiction.

10.1.2. A copy of NRC Form 241 or similar document, listing specific licensable items the contractor wishes to use on base.

10.1.3. Establish procedures to ensure radiological health and safety of Air Force personnel and the public while on base.

10.1.4. The name of responsible contractor representative (Contractor RSO).

10.1.5. Training and qualifications of both users and the Contractor RSO.

10.1.6. The part of the Air Force contract describing work to be done at the base and the inclusive dates of such work.

10.1.7. An acknowledgment that the base RSO can make periodic checks to ensure the contractor is following applicable radiological health and safety practices that prevent unnecessary exposures to Air Force personnel and prevent contamination of government property.

10.1.8. Most recent leak check results (if required).

10.1.9. Any storage or security requirements.

11. Training.

11.1. **Personnel Training:** All individuals working in or frequenting any portion of an area where radioactive material or radiation producing devices are used must receive initial and annual radiation protection training. Initial training will be conducted before, or as soon as possible after assignment to work areas involving radiation exposure. Annual refresher training will be conducted to reemphasize and reinforce training objectives.

11.2. **Training Requirements:** Unit RSOs will perform all annual training for all assigned personnel and forward the training roster to the base RSO. Course content and instruction will include hazards associated with ionizing radiation, protection from radiation, the ALARA Concept, effects of ionizing radiation upon unborn children, AF policy on pregnant members and ionizing radiation, and potential overexposure reporting procedures. The Base RSO will supply the trainers with ALARA training outlines.

11.3. **Documentation:** Training will be documented on AF Form 55. AF Form 2767, **Occupational Health Training and Protective Equipment Fit-Testing** will also be filled out and filed in the shop's industrial hygiene case file maintained by 319 ADS/SGGB.

12. Quality Control Program.

12.1. **The Base RSO will conduct quality assurance review to include:**

12.1.1. Monthly/Quarterly review of TLD results to ensure overexposure, abnormal exposure, investigation, and pregnant member action levels have not been exceeded. Abnormal TLD results will be reported to the Aerospace Medicine Council.

12.1.2. TLD results for pregnant female workers will be reviewed monthly and documentation maintained on all actions taken to ensure that the total dose to the fetus does not exceed 500 mrem during the term of pregnancy.

12.2. Annual radiation protection program reviews will be accomplished and documented. The results will be presented to the Aerospace Medicine Council. The reviews will include:

12.2.1. Currency of all local implementing directives (base instructions and office operating instructions, etc.).

12.2.2. All radiation survey results for the past year to ensure all required surveys have been performed, properly documented, and that corrective action, if necessary, has been taken.

12.2.3. Currency and updating of radiation emitter/source material inventory.

12.2.4. All TLD results for the past year to ensure those adverse exposure trends were noted and appropriate follow-up action was taken for results that exceeded standards or action levels.

12.2.5. All USAF Radioactive Material Permits and NRC licenses to ensure currency and compliance.

MARSHALL K. SABOL, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

Department of Defense Instruction (DODI) 6055.11, *Protection of DOD Personnel from Ionizing Radiation*

10 CFR, *Energy*, Parts 19 through 50 and 150.20

29 CFR, *Occupational Safety and Health Administration (OSHA)*, Part 1010.96

49 CFR, *Department of Transportation*

HQ USAF/SGPA Policy Letter, dated 17 Oct 1984, *Implementation of the ALARA Concept in the Air Force Radiation Protection Program*

HQ USAF/SGPA Policy Letter, dated 4 Aug 1983, *Occupational Exposure of Fertile Women to Ionizing Radiation*

HQ USAF, AFMOA/SGOR Letter, dated 10 Apr 1995, Changes to the USAF Radioactive Materials Permitting as defined by AFI 40-201, *Managing Radioactive Materials in the USAF*

HQ USAF.SG Policy Letter, dated 27 Apr 1987, *Radioactive Materials Incident Report*

AFI 40-201, *Managing Radioactive Materials in the U.S. Air Force*

AFI 48-148, *Ionizing Radiation Protection*

AFJMAN 24-204, *Preparing Hazardous Materials for Military Air Shipment*

AFI 48-125, *The US Air Force Personnel Dosimetry Program*

AFI 91-204, *Investigating and Reporting of US Air Force Mishaps*

AFI 37-138, *Records Disposition, Procedures and Responsibilities*

T.O. 33B-1-1, *Nondestructive Inspection Methods*

Technical Order Series 00-110N

NRC Informational Notice No. 90-35, dated 24 May 1991, *Type A Quantities of 14 Active Material B1*