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**Safety**

**WEAPONS SAFETY PROGRAM**



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This instruction implements AFD 91-2, *Safety Programs*. This instruction establishes responsibilities for mishap prevention in the use, storage, transportation, and identification of explosives and hazardous materials. This program applies to all units and tenants with a mission involving ammunition, explosives, and hazardous materials in the transportation pipeline.

**SUMMARY OF REVISIONS**

Non-specific grammatical changes. Updated DAFBR 127-3, *Reception of Hazardous/Sensitive Cargo* to DAFBI91-204, *Reception of Hazardous/Sensitive Cargo* and AMCR 136-1, *Explosive Ordnance Disposal (EOD)* to AMCI32-3001, *Air Mobility Command Explosive Ordnance Disposal (EOD)* Program and updated Fire and Ambulance phone numbers. A bar ( | ) indicates change from the previous edition.

**1. General :** A unit must coordinate all ammunition or explosives procedures with the 436 AW Chief of Safety and Weapons Safety Manager/NCOIC before final action by the approval authority (Squadron commander or equivalent). The Weapons Safety Program must be equally shared by the host and tenant units and supported by all levels of management to be effective. Apply the program by:

- 1.1. Coordinating between host and tenant representatives in explosives and hazardous material operations.
- 1.2. Enforcing and complying with safety instructions/regulations and standards, and applying safety engineering principles.
- 1.3. Inspecting explosives, operations, and facilities, and investigating mishaps and incidents.
- 1.4. Identifying hazards and developing corrective measures.
- 1.5. Using technically qualified explosives personnel and correct use of equipment.
- 1.6. Adequately training personnel on a frequent and continuing basis.

1.7. Unit Responsibilities: All units will comply with established procedures. Personnel responsible for handling, storing, assembling, maintaining, testing, transporting, or using explosives will make sure that:

1.7.1. Ammunition, explosives or items containing explosives are not taken into or stored in any office or building not licensed/cited for that use.

1.7.2. They brief operating personnel in detail with safety directives, technical orders, operating instructions and other publications to ensure a safe and efficient operation.

1.8. Explosives Truck Routes:

1.8.1. Primary Route: All vehicles containing DOT Class A or B (1.1, 1.2, 1.3) explosives will enter and exit the base through Gate 5. Vehicle movement is restricted to the roads from Gate 5 to the explosives storage facilities. Gate 5 is located east of ZONE II and is for the sole use of explosives loaded vehicles.

1.8.2. Alternate Route: If the primary truck route becomes unusable, use Gate 4 (South Gate) and follow Arnold Drive and Reno Street to the explosives storage facility. The 436th Aerial Port Squadron (436 APS) will provide a lead vehicle. In the event the 436 APS cannot provide a lead vehicle, request assistance from 436th Security Forces Squadron (436 SFS) IAW DAFBI 91-204.

1.8.3. Flight line/Internal Base Routes: All explosives loaded vehicles will follow the explosives routes. (See [Attachment 1](#)).

1.8.3.1. The movement of explosives between licensed explosives facilities over internal base explosives routes is limited to 50 pounds NEW, C/D 1.3 and unlimited quantities C/D 1.4.

1.8.3.2. Each vehicle transporting explosives on base must have appropriate fire symbols to include Fire Symbol 4 and fire extinguishers as required by AFMAN 91-201, *Explosives Safety Standards*. Exception: Mission-essential requirements may deviate from the explosives routes, but avoid all highly populated areas and mission-oriented facilities.

## 2. Responsibilities and Procedures:

2.1. Mishap Notification: In the event of an explosives mishap, i.e., malfunction of an explosive item, unintentional functioning, dropping, etc., notify base agencies as directed by unit Operating Instructions (OIs) or instruction/regulation. Stop all operations and evacuate personnel to a safe withdrawal distance. Do not move equipment, explosives, etc., until a thorough investigation is completed. Resume operations only when authorized by the On-Scene Commander.

2.2. Program Elements: All organizations having a mission or participating in functions involving explosives or hazardous materials are responsible for developing and implementing an effective explosives mishap prevention program. These organizations will:

2.2.1. Review and enforce mishap prevention and damage control techniques, procedures and requirements.

2.2.2. Coordinate all directives and matters involving explosives and hazardous material with the Weapons Safety Manager/NCOIC (436 AW/SEW).

- 2.2.3. Prepare AF Form 2047, **Explosives Facility License**, for each explosive location that is not cited for explosives. Submit licenses to the Weapons Safety Manager, 436 AW/SEW, for approval. Prepare license in accordance with AFMAN 91-201.
- 2.2.4. Immediately advise 436 AW/SEW of operations relating to handling, using, storing, and moving explosives or hazardous materials on Dover AFB for which the organization is the OPR.
- 2.2.5. Prepare Operating Instructions (OIs) or unit regulations/instructions for handling, using, storing and transporting explosives and other hazardous materials in accordance with AFMAN 91-201. Use AF Form 673, **Request To Issue Publication**, as a cover sheet on all copies of local written procedures. At a minimum, Security Forces Resource Protection (436 SFS/SFAR), Fire Protection Branch (436 CES/CEF), Explosives Ordinance Disposal (436 CES/EOD), Weapons Safety Manager (436 AW/SEW), and the Chief, Wing Safety (436 AW/SE) must coordinate on these publications. For units and squadrons having a custodial ammunition account, coordinate with Munitions Management (436 EMS/LGEAM). Develop and coordinate these directives, with proper approval, before beginning any operation. Process changes in the same manner as the original directive. In all instances, the 436 AW/SE is the final approving authority. Send one copy of the approved procedures, AF Form 673, and the current index to 436 AW/SE.
- 2.2.6. Ensure operating personnel periodically review unit operating instructions on the handling, storing and transporting of explosives and other hazardous materials. Include a statement in the OI that it has been read and understood by unit operating personnel.
- 2.2.7. Ensure supervisors, qualified through training, experience or education, apply accident prevention principles and safety standards. Supervisors will train operators.
- 2.2.8. Notify the Fire Protection Branch (436 CES/CEF) when loading, unloading and storing explosives. Include type of explosive, net explosive weight (NEW), hazard class and type of operation. Advise 436 CES/CEF when fire or hazard symbol changes.
- 2.2.9. Notify 436 AW/SE if explosive-related information conflicts and cannot be resolved in the unit.
- 2.2.10. Appoint a qualified unit weapons safety officer, NCO or civilian to direct the unit explosive program. Submit the appointment letter to 436 AW/SEW. The unit weapons safety officer will ensure personnel who work with explosives receive initial weapons safety training and refresher training, as needed. The Weapons Safety Manager (436 AW/SEW) provides training for newly assigned unit weapons safety representatives within 30 days of assignment (after receipt of appointment letter).
- 2.2.11. Make sure operators of vehicles loaded with explosives and explosive handling equipment are trained and tested in explosives handling procedures.
- 2.3. All operations, except EOD Render Safe, involving explosives items must have comprehensive local written procedures to cover operations. Prepare and approve IAW AFMAN 91-201 and applicable supplements. Identify the following in the text:
- 2.3.1. Purpose: Indicate and describe type of activity (inspecting, shipping, testing, using) and indicate the type and quantity of explosives involved. Include National Stock Number (NSN), DOD hazard class/division, appropriate fire symbol or chemical hazard group.
- 2.3.2. Emergency Procedures: Identify specific responsibilities and actions. (See [Attachment 2](#)).

- 2.3.3. Responsibility: Include position title of person(s) responsible for local written procedures.
  - 2.3.4. References: List all references applicable to the operation.
  - 2.3.5. Explosive Limits: Include limitations, by DOD hazard class/division, permitted at the operation. Make sure written procedures agree with AF Form 2047, Explosives Facility License.
  - 2.3.6. Personnel Limits: Identify visitors permitted at the operation.
  - 2.3.7. Equipment Requirements: List equipment required for the operation. This includes specific safety equipment and protective clothing.
  - 2.3.8. Location(s) of Operation: Be specific.
  - 2.3.9. Safety and Security Precautions: Be specific. A statement such as “All Safety Precautions Will Be Adhered To” is not adequate.
  - 2.3.10. Sequence of Operations: Include step-by-step instructions to perform the operation. You don't have to list step-by-step procedures if Air Force, Army or Navy publications contain specifics. Referenced publications or associate portions of them must be available at the work site.
  - 2.3.11. Dud Misfire Procedures: Be specific on the action to be taken.
- 2.4. Safety Requirements and Precautions:
- 2.4.1. Use the type and quantity authorized in appropriate Table of Allowance, i.e., AFCAT 21-209, Ground Munitions, for your unit.
  - 2.4.2. Authorize only trained personnel to use explosive devices. Document proficiency training in appropriate training records AF Form 1098, **Special Task Certification and Recurring Training**.
  - 2.4.3. Use the buddy system, as defined in AFMAN 91-201, Attachment 1, to the maximum extent possible when handling explosives. Base level procedures may be developed allowing one individual to handle explosives, but must be approved by Wing Safety.
- 2.5. The Defense Reutilization and Marketing Office (DRMO) will:
- 2.5.1. Coordinate with 436 AW/SE to make sure Tab D-8 of the Base Master Plan shows the quantity-distance clear zones.
  - 2.5.2. Prepare and submit site plans for all planned explosives facilities and other facilities affecting weapons safety and:
    - 2.5.2.1. Coordinate site plans with 436 AW/SE before submission.
    - 2.5.2.2. Secure approval for site plan before construction begins.
  - 2.5.3. Provide 436 AW/SE and 436 EMS/LGEAM with the results of the 7- and 14-month inspections of the electrical grounding systems of all explosive facilities.
  - 2.5.4. Make sure the Fire Department maintains a base map showing all explosive locations and fire hazards.
  - 2.5.5. Coordinate all demolition, modification, and repair to facilities and proposed construction within the quantity-distance clear zones with 436 AW/SEW before starting a project.

- 2.6. Explosives Ordnance Disposal (436 CES/EOD): Call the Command Post (436 AW/CP) for EOD assistance. They in-turn will notify 436 CES/EOD.
- 2.7. EMS Commander (436 EMS/CC) will:
  - 2.7.1. Centrally control and monitor munitions suspense and restrictions:
  - 2.7.2. Coordinate with 436 AW/SEW on all plans, Material Deficiency Reports (MDRS) and programming actions involving ammunition, explosives and other hazardous materials/items.
- 2.8. Chief of Resource Plans (436 AW/XP) will review and coordinate with 436 AW/SE on all host-tenant agreements.
- 2.9. Dover Command Post (436 AW/CP) will:
  - 2.9.1. Consult with 436AW/SE on all questions concerning explosives or hazardous materials/items.
  - 2.9.2. Dispatch applicable hazardous cargo information in AMC air movement messages.
  - 2.9.3. When required, request 436 CES/EOD assistance IAW AMCI32-3001, and 436 AW/CP procedures.
  - 2.9.4. When required, consult with 436 AW/SEW on request for "short-notice event waivers" and obtain waiver number.
- 2.10. Base Operations (436 OSS/OSFA) will:
  - 2.10.1. Coordinate with 436 AW/SEW on airfield matters involving explosives.
  - 2.10.2. Ensure flight plan remarks contain complete information when transporting hazardous cargo.
  - 2.10.3. Maintain a contingency plan for parking a 50 percent overflow of explosive loaded aircraft.
  - 2.10.4. Ensure Flight Publications Information En-Route Supplement contains adequate explosives capability information about Dover AFB.
- 2.11. Aerial Port (TR) will:
  - 2.11.1. Coordinate operating requirements with the Command Post and Base Operations when aircraft loading, unloading or in-transit activity involves explosives or hazardous items as required by DAFBI 11-205, Support of Aircraft Transporting Hazardous Cargo.
  - 2.11.2. Complete and make distribution of SF 361, **Transportation Discrepancy Report**, when explosives or hazardous materials are involved.
  - 2.11.3. Comply with Title 49 CFR, and AFMAN 24-204, Preparing Hazardous Materials for Military Air Shipments, when explosive and hazardous materials are involved.
  - 2.11.4. Make sure qualified supervisors direct operations involving explosive and other hazardous material.
  - 2.11.5. Make sure the Defense Supply Agency Handbook 4510.3, Terminal Facilities Guide, USAF, accurately reflects the current explosives capability for Dover AFB.

- 2.12. Disaster Preparedness (436 CES/CEW) will coordinate with 436 AW/SEW on all disaster control activities that involve ammunition, explosives and other hazardous materials.
- 2.13. Life Support (436 OSS/OSTL) will make sure aircraft carrying explosive items and pyrotechnics for survival purposes and actuating devices are serviceable and properly recorded on AFTO Form 337, **Life Raft/Container Inspection Record** and AFTO Form 338, **Survival Kit Record**.
- 2.14. Medical Group (436 MDG/SG) will:
- 2.14.1. Provide medical and bio-environmental engineering services and support when explosives and chemical agents are involved IAW AFI 32-4001, Disaster Preparedness Planning and Operations and AFMAN 32-4007, same title.
  - 2.14.2. Provide technical advisors to all staff agencies regarding medical assistance.
- 2.15. Security Police Squadron (436 SFS/SF) will:
- 2.15.1. Coordinate with 436 AW/SEW on routes vehicles will use in transporting explosives on base.
  - 2.15.2. Provide 436 AW/SEW with the following information when encountering explosives or ammunition during customs inspection: type, amount, when discovered and person(s) involved with the investigation.
  - 2.15.3. Coordinate with the Weapons Safety Manager/NCOIC on AF Form 2047, **Explosives Facilities License**.
  - 2.15.4. Review and recommend approval or disapproval of all Operating Instructions (OIs) involving explosives.
  - 2.15.5. Inform 436 AW/SEW when contraband explosives or hazardous materials are discovered on base.
- 2.16. The Weapons Safety Manager/NCOIC (436 AW/SEW) will:
- 2.16.1. Implement and direct 436 AW Weapons Safety Program.
  - 2.16.2. Ensure all host and tenant organizations involved in explosive operations participate in the 436 AW Weapons Safety Program.
  - 2.16.3. Annually inspect all ammunition and explosive operations/sites on Dover AFB. Inspection requirements are IAW AFI 91-202. Maintain documentation of all locations inspected, discrepancies noted and corrective action taken.
  - 2.16.4. Review and recommend approval/disapproval of Explosives Operating Instruction (OIs). An index and copy will be filed in 436 AW/SEW.
  - 2.16.5. Investigate and report on all explosive mishaps and incidents occurring on base.
  - 2.16.6. Provide technical assistance to officials responsible for transporting, storing, training and securing the various types of explosives, ammunition and other hazardous cargo on Dover AFB. Maintain and prepare required reports for the 436 AW/SE, Chief of Safety's coordination and review.
  - 2.16.7. Assists organizations in the preparation of explosives waivers, exemptions and deviations.

2.16.8. Prepare site plans for new construction or modification of explosives facilities or facilities that may indirectly experience explosive hazard exposure.

2.16.9. When an emergency condition dictates, coordinate and recommend approval/disapproval of all waivers from quantity-distance criteria. Identify organizations requiring waivers, dates and hours of waiver required, quantity-distance class/division, net explosive weight involved, number of non-essential personnel involved, reason for waiver, exposed location/facility number(s) and specific location of potential explosive site, identifiable on the Base Master Plan, Tab D-8.

2.16.10. Ensure contingency plans are available for handling a 50 percent overflow of explosives-loaded aircraft and intransit storage.

2.16.11. Provide initial weapons safety training for all unit Weapons Safety Officers and NCOS.

2.16.12. Accompany aircrews on explosive cargo missions to monitor compliance with weapons safety directives.

2.16.13. Maintain site plans in a permanent file.

### 3. Training:

3.1. Weapons safety training must meet the requirements of AFI 91-202, The USAF Mishap Prevention Program. Coordinate unit lesson plans with the base weapons safety manager/NCOIC.

3.2. Document weapons safety training on AF Form 1098, **Special Task Certification and Recurring Training** or other appropriate training records.

3.3. Test operators of vehicles and equipment that involve transportation or movement of explosives on their knowledge of safe handling procedures and requirements. Document certification on appropriate training records (AF Form 1098, etc.). Develop local written procedures to implement explosives transportation and handling certification in the Base Weapons Safety Program. AMC units in tenant status must obtain host base assistance in developing and implementing above procedures.

3.4. Coordinate Fire Department Training plans involving explosives with the Weapons Safety Manager.

### 4. Mobility/Contingency:

4.1. Refer to DAFBI 11-205 for weapons safety standards in support of aircraft transporting hazardous cargo. DAFBI 11-205 applies to all units associated with command and control, parking, maintenance, loading and off-loading, servicing and guarding of these aircraft.

4.2. During contingency operations, incorrectly marked ammunition containers may transit Dover AFB. Empty containers might be marked "Full" with applicable explosive labels. Contact Munitions Maintenance Element (436 EMS/LGEAM) for container inspections.

SCOTT E. WUESTHOFF, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 31-202, *Military Working Dog Program*

AFMAN 91-201, *Explosive Safety Standards*

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

49 CFR, *Code of Federal Regulations*

***Terms***

**Ammunition**—Type of munitions containing explosives, propellant, pyrotechnics, initiating compound, or chemical materials designed to inflict damage upon personnel, structures, material or military objectives.

**Department of Transportation (DOT) Hazard Classes**— These are the classification of hazardous materials established by DOT to identify hazardous materials in the transportation mode. AFJMAN 24-204, Preparation of Hazardous Materials for Military Air Shipment, 49 Code of Federal Regulations (49 CFR), and AFMAN 91-201, Explosives Safety Standards, provide instructions for handling, packaging and marking ammunitions, explosives and hazardous cargo.

**Discrepancy**—Noncompliance with a requirement or directive.

**Explosives**—A chemical compound or mechanical mixture which when subjected to heat, impact, friction, detonation or initiation undergoes a very rapid chemical change with tremendous volume of highly heated gases.

**Explosives Mishap**—Unintentional functioning, releasing, discharging or launching of ammunition or explosives items. Damage or loss occurring during storage, handling or transportation of any explosives material.

**Hazardous Materials**—A compound, mixture or element which is flammable, corrosive, oxidizing, explosive, toxic, radioactive or magnetic and is dangerous to manufacture, process, store or transport.

**Local Written Procedures**—Written instructions outlining preplanned ammunition, explosive and hazardous material operations in a clear and logical sequence and containing the commander's, functional manager's and supervisor's expectations for task accomplishment. Guidance and requirements for contents, coordination and approval are found in AFMAN 91-201 and supplements.

**Quantity-Distance or Explosives Clear Zone**—Protection requirements from Potential Explosive Sites (PES) to different kinds of Exposed Sites (ES). Also includes collocation of unrelated military functions or recreational activities identified in AFMAN 91-201, Explosive Safety Standards.

**Net Explosives Weight (NEW)**—The actual weight of the explosives material contained in each round, component, device, weapon or container.

**Weapons Safety Inspection**—An inspection made by Weapons Safety personnel to evaluate the storage, maintenance, training and control of all operations involving ammunition/explosives.

**Weapons Safety Manager/NCOIC**—An individual technically qualified through specialized training

and experience who is responsible for all phases of ammunition/explosives safety.

**Attachment 2****FLIGHT LINE/INTERNAL BASE EXPLOSIVE ROUTES**

**A2.1.** This attachment identifies all over the road internal base explosive routes for Class/Division 1.3. and Class/Division 1.4. explosives. The transporting of C/D 1.1. or C/D 1.2. HIGH EXPLOSIVES are not authorized on the main base, with the exception of the 436 Security Force Squadron, K-9 flight IAW AFI 31-202, *Military Working Dog Program*.

**A2.2.** The movement of AN/ALE-47 Countermeasure Dispensing System munitions, C/D 1.3. explosives transported by the 436 EMS/LGEAM flight, in support of C-5 Snowstorm flare missions will utilize Reno Road, traveling north to the hot cargo area. Proceeding on taxi-way D to transient and main aircraft parking ramp.

**A2.3.** The movement of C/D 1.3. and C/D 1.4. explosives to Explosive License Facilities and delivery points on the southwest side of Dover AFB will be made using Atlantic Street and the most direct route possible. No en route stops will be authorized after explosives are loaded on the vehicle. During transportation of explosives on base all explosive safety procedures identified in AFMAN 91-201 and DAFBI 91-201 will be complied with and enforced. In addition, all vehicles transporting C/D 1.4. explosives on Dover AFB will be appropriately placarded.

## Attachment 3

## PRE-TASK SAFETY BRIEFING

**A3.1.** This instruction establishes a standardized pre-task briefing for all munitions/explosives operations. It applies to all personnel engaged in the operation.

**A3.2.** In the event of an accident or incident during the operation, the appropriate office(s) listed below will be contacted:

HOSPITAL EMERGENCY ROOM	2600/01/02
FIRE DEPARTMENT	911
SAFETY OFFICE	3369
SECURITY POLICE	6664
EOD	6306
COMMAND POST	4201
UNIT COMMANDER	xxxx
AMBULANCE	911

**A3.3. References:**

A3.3.1. AFI 91-201, *Explosives Safety Standards*.

A3.3.2. DAFBI 91-101, *The Dover Air Force Base Nuclear Surety Program*

A3.3.3. Specific Item Technical Order (T.O.)

A3.3.4. T.O. 11A-1-46.

**A3.4. Responsibilities:** All personnel engaged in the operation are responsible for complying with this instruction. The senior individual of the operation will complete this instruction (fill in the blanks) and brief all crew members of its content prior to the start of the operation.

**A3.5. Type of Operation :** \_\_\_\_\_.

**NOTE:** IN THE EVENT OF AN ABNORMAL SITUATION, THE OPERATION WILL STOP UNTIL IT IS CORRECTED OR ELIMINATED.

**A3.6. Personnel Limits:** A minimum of one supervisor and one worker is required for any explosive/ munitions operation. The personnel limits established in the specific operation instructions or regulations/ instructions for this operation is/are:

A3.6.1. SUPERVISOR: \_\_\_\_\_.

A3.6.2. WORKER: \_\_\_\_\_.

A3.6.3. CASUALS: \_\_\_\_\_.

**A3.7. Explosive Limits:** \_\_\_\_\_ or as posted in the storage site. (See the specific operating instruction/regulation/instruction for this type operation for further guidance.)

**A3.8. Hazard Class:** \_\_\_\_\_.

**A3.9. Major Hazard:** \_\_\_\_\_.

**A3.10. Item T.O.:** \_\_\_\_\_.

**A3.11. Location of Operation:** \_\_\_\_\_.

**A3.12. Drop Distance:** \_\_\_\_\_.

**A3.13. Withdrawal Distance:** \_\_\_\_\_.

**NOTE:** SHOULD AN ITEM BE DROPPED IN EXCESS OF THE MAXIMUM DROP DISTANCE. ITEM WILL BE CONSIDERED UNSAFE FOR USE AND THE OPERATION WILL STOP UNTIL THE SITUATION HAS BEEN CORRECTED.

**A3.14. Emergency Procedures:** In the event an accident/incident or fire occurs, the following action(s) will be taken:

A3.14.1. \_\_\_\_\_ will notify the Fire Department, telephone number \_\_\_\_\_ with the following information:

A3.14.1.1. Type of Munition(s) Involved: \_\_\_\_\_.

A3.14.1.2. Location of Operation: \_\_\_\_\_.

A3.14.1.3. Time Munitions Were Engulfed in Flames: \_\_\_\_\_.

A3.14.1.4. Personnel Injuries (if any): \_\_\_\_\_.

A3.14.1.5. \_\_\_\_\_ will fight the fire.

A3.14.1.6. \_\_\_\_\_ will direct the Fire Department.

A3.14.1.7. \_\_\_\_\_ will evacuate all non-essential personnel.