

**BY ORDER OF THE COMMANDER  
HILL AIR FORCE BASE (AFMC)**



**AIR FORCE MANUAL 91-201  
HILL AIR FORCE BASE  
Supplement 1  
29 MAY 2001**

**Safety**

## **EXPLOSIVES SAFETY STANDARDS**

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This supplement applies to all units at Hill Air Force Base, Utah Test and Training Range and Little Mountain Test Complex. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule*.

### **SUMMARY OF REVISIONS**

This document is substantially revised and must be completely reviewed. The publication was revised to align to AFMAN 91-201, *Explosives Safety Standard*, 7 March 2000.

***AFMAN 91-201, 7 March 2000, is supplemented as follows:***

1.1.6 (Added). When organizations decide to use a method other than the preferred "should" to accomplish an explosives or munitions related procedure they will coordinate and describe the optional procedure in writing, with Weapons Safety Division (OO-ALC/SEW) prior to implementation.

1.5. The Operational Risk Management (ORM) process cannot be used directly to deviate from criteria promulgated by the DoD Explosives Safety Board or Higher Headquarters. It can be used to justify a waiver that must be approved by higher authority. The ORM process can be used to deviate from other explosives safety standards. ORM assessments effecting criteria in AFMAN 91-201, other than Q-D waivers, must be coordinated with OO-ALC/SEW and approved by the 75 ABW Commander

2.1. Any individual involved in an explosive operation detecting an unsafe act or hazardous condition is authorized to, and will, take immediate action to stop the operation. The operation

will not be resumed until the functional manager, as defined in AFI 91-202 and OO-ALC/SEW, ensures the hazardous condition is corrected.

2.2. Each organization will ensure individuals requiring unescorted entry into munitions storage/operations areas receive explosives orientation prior to being granted unescorted entry. Contact OO-ALC/SEW for guidance on content and scope of explosives orientation lesson plans. Individuals requiring escorted entry into munitions storage/operations areas will be briefed on explosives safety by their escort prior to entry into the area.

2.5.2. Each explosives operating location must be visually posted, during the period of the operation, with the limits identified in the Explosives Operating Instruction (EOI) for that operation. These limits may be posted on an erasable board. When authorized explosives operations are conducted outside of the explosives clear zone and at EOD training ranges, flightline operations, or other similar locations where posting is impractical the limits must be identified in the EOI available at the site.

2.9. Contracts for fireworks must be coordinated with OO-ALC/SEW and approved by the 75 ABW Commander.

2.16. Organizations that use explosive devices for exercises, training, or demonstrations must involve and coordinate with OO-ALC/SEW in the planning.

2.21.1. The use of barbecues or gas grills in the explosives clear zone must be coordinated with OO-ALC/SEW and approved by the fire department. See paragraph 3.13 of this supplement for explosives siting requirements.

2.25. Notify the Fire Department immediately when vehicles or trailers containing explosives are parked on pads. If the vehicles and trailers are to be parked in excess of one workday, post the appropriate fire symbol in addition to the transportation placards required on the vehicle or trailer.

2.25.7.1. Posting fire symbols on the exterior of facilities licensed according to paragraph 2.35 is not required. Only the interior and exterior door (if one exists) leading directly into the storage area requires fire symbols posting. Lockers, cabinets, and containers in such a facility storing explosives will have the proper symbol.

Table 2.2. E coded munitions identified in T.O. 11A-1-46 will not be stored or maintained in a facility that has a water fire suppression system unless an approved risk assessment shows that there would be little impact on personnel, facilities or contents in the event of a fire involving this type of munitions. The risk assessment is accomplished by the using organization with assistance from the base weapons safety office and approved by the base fire department.

2.28.6. (Added). Except as provided for in AFMAN 91-201, explosives will not be stored or processed in any building or location without written authorization from OO-ALC/SEW. This authorization may be an approved EOI, a license or a listing of authorized explosives in a sited location. OO-ALC/SEW will approve the maximum quantity of net explosives, by hazard class and division, that may be stored or processed in a given building or location. Sited authorizations will be maintained by OO-ALC/SEW. OO-ALC/SEW will provide each directorate having responsibility for explosives storage facilities a copy of the approved explosives site plan.

2.28.7. (Added). Organizations that need to change ownership of assigned facilities in the explosives clear zone will process their request through the Programs Division (OO-ALC/XPP). OO-ALC/XPP will coordinate the request with OO-ALC/SEW.

2.29. No ammunition, components, or other items containing explosives material will be brought into or stored in any office, barracks, warehouse, or building which is not authorized for the storage and handling of explosives. This provision also applies to empty or inert Quality Deficiency Report (QDR) exhibits that have not been certified empty or inert by authorized inspectors in accordance with T.O. 11A-1-60. For in-use munitions see paragraph 2.59.

2.31.1. Solid propellant residue or explosive scrap will be stored and handled in accordance with assigned classification. If no classification has been assigned or determined, scrap will be handled as HC/D 1.1L until a hazard class/division can be obtained. Functioned ordnance will retain the original hazard classification until certified empty according to T.O. 11A-1-60. Functioned items classified as 1.4S may be considered as inert for purposes of storage and transportation.

2.31.5. (Added) Each directorate, tenant, or staff agency offering munitions and explosives scrap residue to the Defense Reutilization and Marketing Office (DRMO), Hill AFB, will be responsible for the inspection and certification required by T.O. 11A-1-60. Qualified personnel will be appointed in writing by organization commanders (Qualification requirements are contained in T.O. 11A-1-60, paragraph 3-3). Organizations not having assigned personnel who meet the qualification requirements may request support from any organization having a qualified inspector. Inspection procedures and equipment required to perform this task will be in strict compliance with T.O. 11A-1-60. Organizations will provide a list of officially appointed inspectors to DRMO.

2.35.1. Certifying Official for explosives licenses will be the organizational commander. Product directorates may delegate signatory authority to three level, e.g. OO-ALC/LMS, etc.

2.35.4. Requesting organization will obtain coordination from the directorate level explosives monitor, Security Forces Squadron (75 SFS/SF) and Fire Protection Division (75 CEG/CEF) prior to submitting Facility License request to OO-ALC/SEW for approval and issuance of facility license. License will be valid for 12 months.

2.35.5. Licenses will be renewed annually as part of the review process. Coordinate and submit an AF Form 2047, **Explosives Facility License**, to OO-ALC/SEW at least 10 working days before the existing license expires. If annual review determines license is no longer required, the certifying official will revoke the license and notify OO-ALC/SEW, by letter, of this action.

2.35.6. OO-ALC/SEW will forward copies of approved facility licenses to organizational explosives monitor and the Fire Alarm Communication Center (FACC).

Table 2.4. Note 2. When mixing groups with a “Z” at the intersection, obtain written approval from the storage area manager. Coordinate the documentation with OO-ALC/SEW. OO-ALC/SEW will assist in determining the safety impact.

2.36. Aircraft, with installed explosives, that meet the requirements of 11A-1-33 do not require an explosives license. However, all other explosives requirements must be met.

2.47. Prior to installing any electrical equipment in an explosives facility, an analysis will be conducted by the requesting agency identifying the type of NEC hazardous location. This documentation must be part of the AF Form 332, **Base Civil Engineer Work Request**, or facility design package.

2.52.6. (Added). Bulk, sample and scrap missile propellant will be grounded in storage. Propellant must be packaged in a conductive outer wrap. Packages up to one cubic foot may stored on conductive surfaces or with attached ground cables. Propellant packages exceeding one cubic foot will have a separate ground cable attached to the conductive wrap.

2.52.1. When connecting explosives items or containers to facility ground, personnel will connect to the item first, and then the facility ground.

2.58.5. No radios, cell phones, or pagers will be allowed in a national electric code Class I or II explosive environment (i.e. explosive dusts, gases, or vapors). Hand held radios, cell phones, and pagers will be a minimum of 10 feet from packaged electro-explosives devices (EED) during transportation, movement, handling, or when properly installed, unless packaged in a metal container. The minimum distance for EED’s in a metal container is 3 feet. Use AFMAN 91-201 Table 2.5 to determine safe separation distances for vehicle-mounted radios. No cell phone, pager, hand held radio or other mobile RF emitter will be allowed within 25 feet of an exposed EED operation. Appropriate signs will be placed near the entrance of facilities with exposed EED operations reminding individuals to turn off transmitters. OO-ALC/SEW will assist in determining locations for signs.

2.59. In use ammunition and explosives with an assigned explosives Hazard Class Division (HC/D) other than HC/D 1.4 will not be taken into a public assembly place, such as the dining hall or BX, except when required by immediate security requirements. Exceptions are allowed

if justified with an Operational Risk Assessment, coordinated with OO-ALC/SEW and approved by the 75 ABW Commander.

2.68. Explosives movement routes on Hill AFB are designated in Hill AFB Instruction 91-201. Empty trucks arriving to pick up explosives do not need to enter through the Roy Gate.

2.79. Prior to conducting any new munitions process, base organizations and tenants will notify OO-ALC/SEW. This includes development or manufacture of any equipment or fixtures that directly interface with a munitions or explosives device. Systems Safety Project Officer (SSPO) in coordination with Systems Safety Division (OO-ALC/SES) will determine if a safety analysis is required and what military standards are appropriate. Submit completed safety analysis to OO-ALC/SES for review and coordination.

2.81. Before using Condition Code J (CC/J) assets for tests, the project manager must identify any known defects and provide procedures to control the hazards which result that are above and beyond those inherent in the basic item.

3.5.2.4. For quantity-distance determination purposes, HC/D 1.2 munitions not packed in the approved storage and shipping container are HC/D 1.1. When applying Q-D criteria, evaluate both HC/D 1.1 and 1.2 and use the greater separation distance.

3.13. Any location serving multiple Potential Explosion Sites (PES) in the explosives clear used as a gathering point for related munitions personnel for the purpose eating or other related activities must be properly sited and approved by an explosives site plan. Use of these locations by personnel other than those that directly support munitions activities is prohibited. See paragraph 2.21.1, in this supplement, when barbecues or gas grills are used.

3.17. Parking for GOV and POV vehicles at licensed locations will be at least 25 feet from the licensed explosives or separated by a two hour firewall.

3.27.2.2. For burning quantities of HC/D 1.3 explosives greater than 30,000 pounds NEW the withdrawal distance will be at least K105.

4.1. Plans, modifications, facility disposal, new operations, etc. involving explosives at Hill AFB, Utah Test and Training Range (UTTR), and Little Mountain will be coordinated with all appropriate organizations, e.g. OO-ALC/SEW, Environmental Management Directorate (OO-ALC/EM), 75 CEG/CEF, 75 MDG/SGPB, 388 FW/SE, etc.

4.7. Buildings or areas, which have been sited, designed or formerly used for storage, handling or processing explosives, will not be used for any other purpose without OO-ALC/SEW coordination. All AF Forms 332 for facilities or activities in clear zone will be first coordinated through the requesting agencies weapons safety monitor and the through the OO-ALC/SEW prior to beginning any work. Modification or construction activities involving facilities

containing explosives, engineering drawings will be reviewed by OO-ALC/SEW. Drawings will provide general details regarding dividing walls, vent walls, firewalls, roofs, operational shields, barricades, exits, types of floor finish, fire protection system installations, electrical systems and equipment, ventilation systems and equipment, hazardous waste disposal systems, lightning protection system, static grounding systems, process equipment, and auxiliary support structures as well as general materials of construction, unless approved drawings are being used.

4.11. OO-ALC/SEW will provide the user with a copy of approved site plan. User is responsible to ensure all requirements and restrictions of approved plan are complied with. If the approved siting is no longer needed, requires changing or modification the user will contact OO-ALC/SEW.

5.5. OO-ALC/SEW will prepare the AF Form 943, *Explosives Safety Site Plan*, with required attachments. Requesting organization will provide OO-ALC/SEW with all necessary information to include, at a minimum, justification statement, period of time Waiver/Exemption/Deviation is required, and proposed corrective actions

5.6. OO-ALC/SEW will provide the user with a copy of approved Waiver/Exemption/Deviation. User is responsible to ensure all requirements and restrictions are complied with.

6.4.1. Land actions and plans where ammunition and explosives are suspected must be coordinated with OO-ALC/SEW.

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