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REFERENCES, FORMS, ABBREVIATIONS AND ACRONYMS, AND TERMS

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5.2 Forms

5.2.1

Department Of Defense

DD Form 1391, **FY ____ Military Construction Project Data**

5.2.2

Department of the Air Force

AF Form 332, **BCE Work Request**

AF Form 813, **Request for Environmental Impact Analysis**

AF Form 943, **Explosives Safety Site Plan/Waiver/Exemption**

5.3 Abbreviations and Acronyms

| | |
|--------|--|
| A-E | Architecture-Engineering |
| AA&E | Arms, Ammunition, and Explosives |
| ACC | Air Combat Command |
| ADAAG | Americans with Disabilities Act Accessibility Guidelines |
| AFCAT | Air Force Catalog |
| AFCEE | Air Force Center for Environmental Excellence |
| AFCESA | Air Force Civil Engineer Support Agency |
| AFH | Air Force Handbook |
| AFI | Air Force Instruction |
| AFJMAN | Air Force Joint Manual |
| AFM | Air Force Manual (old publications architecture) |
| AFMAN | Air Force Manual (new publications architecture) |
| AFMC | Air Force Materiel Command |
| AFOSH | Air Force Occupational Safety and Health |
| AFPAM | Air Force Pamphlet |



| | |
|----------|--|
| AFR | Air Force Regulation (old publications architecture) |
| AFRC | Air Force Reserve Command |
| AFSC | Air Force Safety Center |
| AGE | Aerospace Ground Equipment |
| AICUZ | Air Installation Compatible Use Zone |
| AME | Alternate Mission Equipment |
| ANG | Air National Guard |
| ANSI | American National Standards Institute |
| APOD | Aerial Ports of Debarkation |
| APOE | Aerial Ports of Embarkation |
| ASHRAE | American Society of Heating, Refrigeration, and Air Conditioning Engineers |
| ASHS | Assessment System for Hazard Surveys |
| AT/FP | Anti-Terrorism/Force Protection |
| BCE | Base Civil Engineer |
| CAS | Combat Ammunition System |
| Cat Code | Real Property Category Code |
| CBU | Cluster Bomb Unit |
| CE | Civil Engineer |
| CFR | Code of Federal Regulations |
| CONUS | Continental United States |
| DD | Department of Defense (used for forms) |
| DDC | Direct Digital Control |
| DDESB | Department of Defense Explosives Safety Board |
| DoD | Department of Defense |
| ECM | Earth-covered Magazine |
| EED | Electro-explosive Device |
| EMR | Electromagnetic Radiation |
| EPA | Environmental Protection Agency |
| ES | Exposed Site |
| ESP | Explosives Site Plan |
| ETL | Engineering Technical Letter |
| EUCOM | European Command |
| FOD | Foreign Object Damage |
| FOUO | For Official Use Only |



| | |
|-------|--|
| ft | Feet or Foot (measurement) |
| FPCON | Force Protection Condition |
| GOV | Government Owned Vehicle |
| HAMS | Holding Area Munitions |
| HC/D | Hazard Class/Division |
| HDBK | Handbook |
| HID | High Intensity Discharge |
| HVAC | Heating, Ventilation, and Air Conditioning |
| Hz | Hertz |
| IAPMO | International Association of Plumbing and Mechanical Officials |
| IAW | In Accordance With |
| IBC | International Building Code |
| IBD | Inhabited Building Distance |
| IDE | Intrusion Detection Equipment |
| IDS | Intrusion Detection System |
| IEEE | Institute of Electrical and Electronic Engineers |
| IES | Illuminating Engineering Society |
| IL | Intraline |
| IM | Intermagazine |
| IMF | Integrated Maintenance Facility |
| in | Inch |
| IPC | International Plumbing Code |
| ISO | International Organization for Standardization |
| JTA | Joint Technical Architecture |
| K | Thousands |
| kg | Kilogram |
| km | Kilometer |
| kPa | Kilo Pascals |
| lb | Pound |
| LCC | Life Cycle Costs |
| LEED | Leadership in Energy and Environmental Design |
| LPI | Lightning Protection Institute |
| LPS | Lightning Protection System |
| m | Meter |



| | |
|----------------|---|
| m ² | Square Meter |
| m ³ | Cubic Meter |
| MAC | Munitions Assembly Conveyor |
| MAJCOM | Major Command |
| MASO | Munitions Accountable Systems Officer |
| MCE | Maximum Credible Event |
| MER | Multiple Ejector Racks |
| MIL | Military |
| MILCON | Military Construction |
| MILVAN | Military Van |
| mm | Millimeter |
| MMHE | Munitions Materiel Handling Equipment |
| MSA | Munitions Storage Area |
| MSM | Munitions Storage Module |
| MUNS | Munitions Squadron |
| MXG | Maintenance Group |
| NATO | North Atlantic Treaty Organization |
| NEC | National Electric Code |
| NEW | Net Explosives Weight |
| NFPA | National Fire Protection Agency |
| O&M | Operations and Maintenance |
| OCONUS | Overseas |
| OPR | Office of Primary Responsibility |
| OSD | Office of the Secretary of Defense |
| OSHA | Occupational Safety and Health Administration |
| PAA | Primary Assigned Aircraft |
| PACES | Parametric Cost Engineering System |
| PACAF | Pacific Air Forces |
| PACOM | Pacific Command |
| PES | Potential Explosion Site |
| PM | Program Manager |
| PMO | Program Management Office |
| POC | Point of Contact |
| POL | Petroleum, Oil, Lubricant |



| | |
|-------|---|
| POV | Privately Owned Vehicle |
| psig | Pounds Per Square Inch Gauge |
| Q-D | Quantity-Distance |
| R&M | Reliability and Maintainability |
| SEW | Office Symbol for the Weapons Safety Function |
| sf | Square Foot (or Feet) |
| STD | Standard |
| sy | Square Yards |
| TCTO | Time Compliance Technical Order |
| TI | Technical Instruction |
| TM | Technical Manual |
| TNT | Trinitrotoluene |
| TO | Technical Order |
| TOFC | Trailer on Flat Cars |
| TP | Technical Paper |
| UFAS | Uniform Federal Accessibility Standard |
| UFC | Unified Facilities Criteria |
| UL | Underwriters Laboratories |
| UPS | Uninterrupted Power Supply |
| USAF | United States Air Force |
| USGBC | U.S. Green Building Council |
| VAC | Volts Alternating Current |
| WRM | War Reserve Materiel |
| WSM | Weapons Safety Manager |
| yd | Yards |

5.4 Terms

Assessment System for Hazard Surveys (ASHS). It is a computer-aided tool that was first created to support the Air Force Explosives Hazard Reduction program. The primary function of ASHS II is to analyze an existing explosives storage or operational situation and identify the quantity-distance problems.

Barricade. An intervening barrier (natural or artificial) of such size, type, and construction as to limit the effect of low angle, high velocity fragments.



Cardinal Principle of Explosives Safety. Basic explosives safety principle is to expose the minimum number of people to the minimum amount of munitions for the minimum amount of time.

Charrette. An intensive conceptual design session usually held at the functional user site. It may last several days and is attended by the functional user, architecture-engineering (A-E), construction agent, the project management team, and sometimes by MAJCOM representatives.

Compatibility. Explosives are considered compatible if they may be stored or transported together without significantly increasing the probability of a mishap or, for a given quantity, the magnitude of the effects of a mishap.

Concurrent Operations. Two or more explosives operations within a single facility or location.

Deviation. Written authorization which allows a specific departure from the rules of AFMAN 91-201 other than quantity-distance criteria.

DoD Explosives Safety Board (DDESB). DoD organization charged with promulgating explosives safety policy and standards, and with reporting on the effectiveness of the implementation of such policy and standards.

Electro-explosive Device (EED). An explosive or pyrotechnic component initiated by the application of electricity.

Electromagnetic Radiation (EMR). Radiation made up of oscillating electric and magnetic fields and propagated with the speed of light. Includes gamma radiation, X-rays, ultraviolet, visible, and infrared radiation, and radar and radio waves.

Energy Star. Energy Star is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency products.

Exception. An inclusive term for any departure from the requirements of AFMAN 91-201.

Exemption. A relatively long-term departure from a mandatory quantity-distance requirement standard of AFMAN 91-201.

Explosive. A substance or mixture of substances that under external influences, is capable of rapidly releasing energy in the form of gases and heat.

Explosives Clear Zone. The area around a Potential Explosion Site (PES) that is determined by the required inhabited building distance (IBD) separation. The IBD separation will be based on the sited, waived, exempted, or actual explosives limits of the PES site, whichever is greatest.

Explosives Site Plan (ESP). A package consisting of all the necessary information to assess compliance with explosives safety standards for an explosives storage or operating location and their impacted exposed sites. Once approved, the ESP identifies storage and operating limitations, and



provides a tool for managing the risks associated with the storage or operating location.

Exposed Site (ES). Any permanent facility, utility, Petroleum, Oil, and Lubricant (POL), site storage, at risk from either blast or fire effects of a Potential Explosion Site (PES). An ES may or may not contain explosives.

Field Office. Any office adjacent to or within an explosives area in which operational administrative functions pertaining to explosives are performed. Quantity-Distance criteria is not applied to the personnel in the offices of this potential explosion site who perform maintenance in the bays or provide first-level supervisory guidance to these workers.

Inhabited Building Distance (IBD). The minimum allowable distance between an inhabited building and a potential explosion site.

Intermagazine Distance (IM). The minimum distance allowed between two explosives locations. This distance is expected to prevent simultaneous detonation.

Inert. Contains no explosives, active chemicals, or pyrotechnics, but is not necessarily noncombustible.

Intraline Distance (IL). The minimum distance allowed between any two operating locations or other designated exposures. This distance is expected to prevent propagation.

License. Formal permission to store explosives or munitions outside the sited munitions storage area.

Maximum Credible Event (MCE). An MCE is defined as the largest quantity of explosives expected to explode at one time when an item in a stack or group of items is initiated or when explosives are stored at less than intermagazine distance apart.

MILCON COACH. An AFCEE-developed software-based technical tool for the Air Force construction community. This tool is intended to improve Air Force Project Managers' (PM) productivity and efficiency. MILCON Coach's goal is to harvest needed knowledge from PMs over time, store it electronically, and make it available to other PMs when it is needed. PMs can use the "lessons learned" feature to record useful advice for distribution in future program updates.

Net Explosives Weight (NEW). The total quantity, expressed in pounds, of explosives material or pyrotechnics in each item or round.

Operating Location. A building, facility, or site in which operations pertaining to the manufacturing, processing, handling, or assembling of ammunition or explosives is done.

Outsized. Military transportation term defining wide load, or something that extends beyond standard vehicle or pallet width.

Parametric Cost Engineering System (PACES). PACES is an Air Force integrated personal computer-based parametric budgeting and cost estimating system developed for military construction application. Parametric cost estimates can be prepared for new facility construction,



renovation, and life cycle costs. The parametric approach differs from traditional cost estimating methods by allowing the user to input a minimum amount of information to create a cost estimate; with model default quantities based on similar projects and experienced architectural and engineering assumptions. Pre-defined and documented engineering relationships link the primary parameters to detailed design assumptions and associated engineering quantities.

Potential Explosion Site (PES). A location or facility that contains or is expected to contain explosives.

Quantity-Distance (Q-D). The quantity of explosives material and distance separation relationships that provide definitive types of protection. These relationships are based on the level of risk considered acceptable for each stipulated exposure and are tabulated in the Q-D tables in AFMAN 91-201. Separation distances are not absolute safe distances but are relative protective or safe distances.

Real Property Category Code. Two 3-digit numbers separated by a hyphen that depict a description of a particular real property asset (i.e., complete facility or part of infrastructure). The category code describes the real property's function. It is essential the category codes are accurate to ensure the proper funding for repairs and/or replacement.

Risk Assessment. A method of determining and documenting hazards which may be present and controls for mitigating or eliminating those hazards.

Substantial Dividing Walls. Walls normally used between bays to prevent propagation of an explosion from one bay to another. They provide limited personnel protection. They are made of reinforced concrete at least 12 in. thick (304.8mm).

Two-Degree Rule. Properly constructed or natural barricades eliminate the risk of propagating explosions caused by low-angle, high-speed fragments and should prevent simultaneous detonation of an explosion. Barricade elevation is effective when a straight line, drawn from the top of the far edge of the stack edge away from the barricade at a two degree angle above the horizontal must pass through the 3-foot (915mm) width of the crest (berm) of the barricade. (See Figure 5.1 on next page)

Waiver. Written authority for a specific short-term (should be corrected within 5 years) departure from a mandatory quantity-distance requirement in AFMAN 91-201.



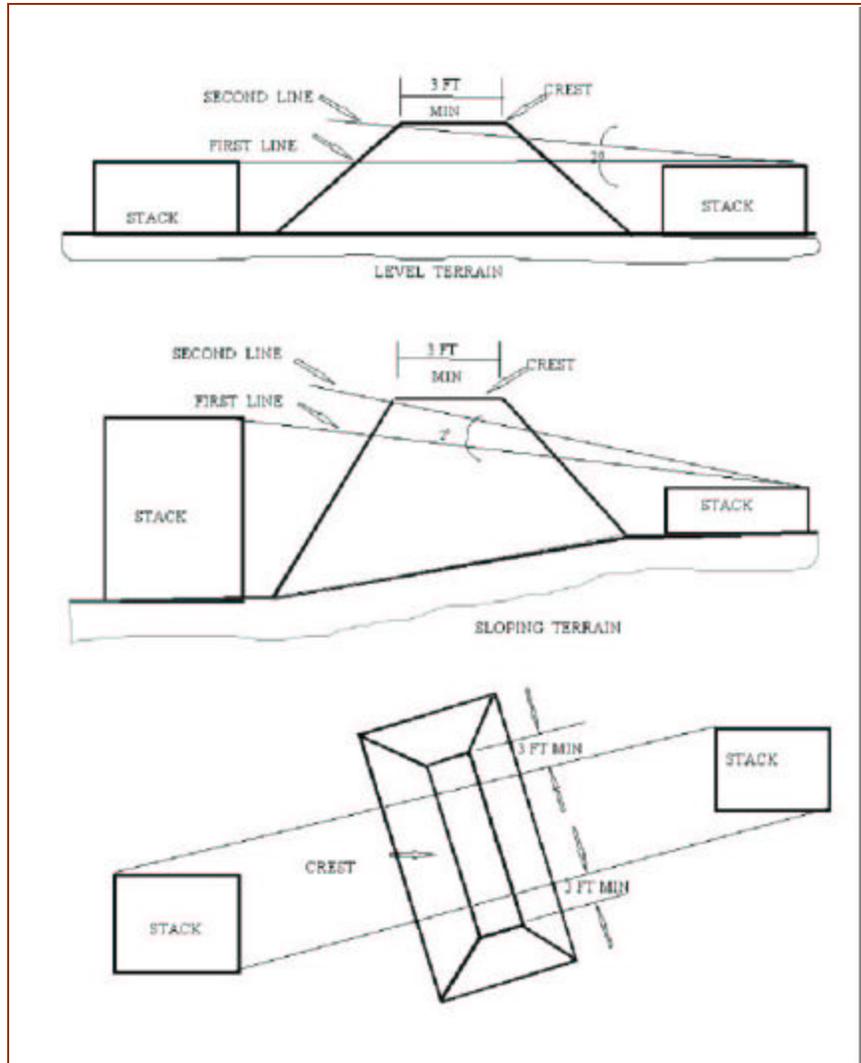


Figure 5.1:
Typical Barricade Stack Relationship

