

# DEPARTMENT OF THE ARMY WORLDWIDE AMMUNITION LOGISTICS/EXPLOSIVES SAFETY REVIEW AND TECHNICAL ASSISTANCE PROGRAM AR 700-13



## FISCAL YEAR 2016 (FY16) REVIEW GUIDE

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CONDUCTED BY
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#### **Table of Contents**

PREFACE	1
SECTION I - LOGISTICS	3
A - ADMINISTRATION	3
A&E AMNESTY PROGRAM	5
B - EXTERNAL/INTERNAL STANDARD OPERATING PROCEDURE (SOP)	6
C - DEMILITARIZATION/DISPOSAL	7
D - FACILITIES AND EQUIPMENT	8
E - MATERIEL MANAGEMENT	10
F - PHYSICAL SECURITY	15
G - STORAGE	20
H - TRANSPORTATION	21
SECTION II - AMMUNITION SURVEILLANCE	23
A - AMMUNITION STOCKPILE RELIABILITY PROGRAM	23
B - RECORDS AND REPORTS	24
C - SURVEILLANCE INSPECTIONS	24
D – SURVEILLANCE SAFETY AND LOGISTICS	26
E - AMMUNITION SURVEILLANCE SOPs	31
F - TECHNICAL ASSISTANCE	31
SECTION III - EXPLOSIVES SAFETY	33
A - EXPLOSIVES SAFETY MANAGEMENT PROGRAM (ESMP)	33
B - EXPLOSIVES SAFETY SITE PLANS, EXPLOSIVES LICENSES, AND A&E MAPS	37
C - AMMUNITION & EXPLOSIVES OPERATIONS	39
D - ELECTRICAL EXPLOSIVES SAFETY	40
E - FIRE PREVENTION, PROTECTION, AND SUPPRESSION	41
F - RISK MANAGEMENT	42
REFERENCES	43

#### **PREFACE**

The Headquarters Department of the Army (HQDA) Worldwide Ammunition Logistics/Explosives Safety Review and Technical Assistance Program reviews/audits are conducted by the Logistics Review and Technical Assistance Office (LRTAO) of the U.S. Army Defense Ammunition Center (DAC) under the provisions of Army Regulation (AR) 700-13 evaluation against a recognized standard

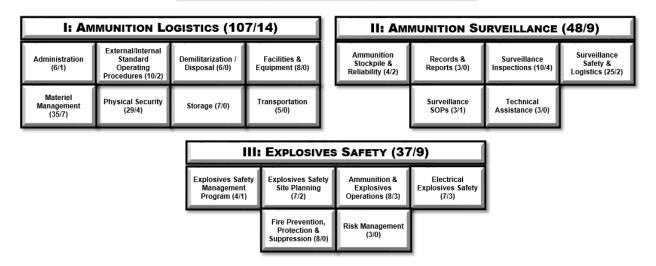
In addition to scheduled reviews, AR 700-13 (Worldwide Ammunition Logistics/Explosives Safety Review and Technical Assistance Program) also establishes a technical assistance program. AR 385-10 (The Army Safety Program) articulates explosives safety assistance visits (ESAV) criteria.

The efforts of the program evolved in recent years from simply documenting findings to conducting evaluations against a recognized standard and providing solutions to finding resolve, teaching and enhancing knowledge base. HQDA Ammunition Logistics/Explosives Safety Reviews should not be punitive in nature, instead provide commanders technical expertise in support of problem areas and provide solutions. Reviews no longer should be identified as something dreadful but a mechanism that encourages improvement and problem solving.

This guide is provided to aid performing self-assessment of ammunition logistics, ammunition surveillance, and explosives safety functions. This document is not intended to supersede, contravene, replace, or modify the publications referenced herein or any other Department of Defense (DOD), Department of the Army (DA), Army Command (ACOM), Army Service Component Command (ASCC) or Direct Reporting Unit (DRU) criteria. Those publications take precedence in the event of any conflict with this guide. Information contained in this guide was current at the time of publication.

Breakdown of 192 elements by section and topic to include elements deemed critical:

FY16 ELEMENT BREAKDOWN 192 ELEMENTS / 32 CRITICAL



#### **SECTION I - LOGISTICS**

#### A - ADMINISTRATION

#### AMMUNITION ACCOUNTABLE OFFICER

A.1. Appointment of an Accountable Officer in writing. The appointing authority will be the commander or the head of the activity. (Critical if Accountable Officer not appointed, or incorrect head of activity)

Reference(s): AR 735-5, paragraph 2-10

A.2. A statement of transfer of accountability is required when a transfer of property occurs and no shipment is involved. The individual being relieved of accountability will prepare a statement similar to the one shown in figure 5-1. The individual assuming the accountability will prepare a statement similar to the one shown in figure 5-2.

Reference(s): AR 735-5, paragraph 5-2(a)

A.3. Individuals other than Accountable Officer signing accountable documentation require delegation authority.

Reference(s): AR 735-5, paragraph 2-8.b(2)

#### HAZARDOUS MATERIAL (HAZMAT) TRAINING

A.4. All personnel involved with the preparation and shipment of HAZMAT for commercial or surface military transportation must receive training in accordance with the Defense Transportation Regulation (DTR). Training Requirements, and Department of Defense (DOD) Component regulations. Training for military air shipments will be in accordance with AFMAN 24-204(Inter-service)/TM 38-250/MCO P4030.19I/NAVSUP Pub 505/DLAI 4145.3. Such employees include those who load, unload, or handle hazardous material; mark packages; or prepare hazardous materials for transportation. Individuals who certify HAZMAT on shipping papers by any mode of transportation (military or commercial) must successfully complete an initial 80-hour HAZMAT certification course.

**Reference(s)**: Defense Transportation Regulation (DTR) 4500.9-R, chapter 204; 49 Code of Federal Regulations (CFR), part 172, subpart H; AFMAN 24-204(Interservice)/TM 38-250/MCO P4030.19I/NAVSUP Pub 505/DLAI 4145.3.

- A.4.1. The Defense Ammunition Center (DAC) offers the Technical Transportation of Hazardous Materials Course to satisfy this requirement.
- A.4.2. Refresher training can be accomplished through resident courses or distance learning (DL). The web-based course is General Transportation of Hazardous Materials Refresher Course available online at <a href="https://www.dactces.org">www.dactces.org</a>, or employees may retake the 80-hour Technical Transportation of Hazardous Materials course.

A.5. Basic HAZMAT (not certification) training consists of five categories: general awareness/familiarization training, function-specific training, safety training, security awareness training, and in-depth security training. Refresher training is required every two years. HAZMAT Familiarization and Safety in Transportation Course is designed to fulfil the need for general awareness/familiarization, safety and security awareness training for HAZMAT employees as required by 49 CFR available online at www.dactces.org.

Reference(s): 49 CFR, part 172, subpart H - §172.704 Training requirements.

#### **EXPLOSIVES OPERATOR TRAINING AND CERTIFICATION**

A.6. Personnel working with ammunition and explosives (A&E) will be trained in the tasks they are to perform. Such personnel must understand the risks, standards, procedures, and precautions that apply to their tasks.

**Reference(s)**: DA Pam 385-64 paragraph 2-3 and figure 1-1; The Federal Facilities Compliance Act (FFCA) of 1992, which amended the Resource Conservation and Recovery Act (RCRA); Occupational Safety and Health Administration (OSHA)

- A.6.1. Each Army Command (ACOM), Army Service Component Command (ASCC) or Direct Reporting Unit (DRU) will establish a certification program includes all personnel directing, supervising, planning, or performing A&E-related functions. DA Pam 385-64 prescribed training found in figure 1-1. The following publications provide additional requirements and guidance concerning training and certification: AMC R 350-4, Training and Certification Program for Personnel Working in Ammunition Operations; IMCOM 5-13 Installation Ammunition Support; ATEC 385-1 ATEC Safety Program; and FORSCOM 350-10, Training and Certification Program for Personnel working in Ammunition Operations.
- A.6.2. The Federal Facilities Compliance Act (FFCA) of 1992, which amended the Resource Conservation and Recovery Act (RCRA), required the U.S. Environmental Protection Agency (EPA), in consultation with DOD and the states, to publish regulations that specify when conventional and chemical military munitions become hazardous waste subject to Subtitle C of RCRA, and provide for the safe storage and transportation of such waste. As a result, EPA promulgated the federal Military Munitions Rule (MR) (62 FR 6621, February 12, 1997) on 12 August 1997. The federal MR provides regulations that define when military munitions become waste and how these waste military munitions (WMM) are to be managed. EPA has the option to delegate RCRA program administration and enforcement authority to a state or territory. In turn, states or territories may either adopt the federal rule or develop their own state WMM regulations that are at least as stringent as those of the federal program. Military Munitions Rule training is available online www.dactces.org, course number 3E-F46/645-F30, formally known as AMMO-68 DL. DA Pam 385-64, figure 1-1, identifies the requirement for completion of initial and recurring Munitions Rule Training.

#### GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION (GHS)

A.6.3 The Occupational Safety and Health Administration (OSHA) revised its Hazard Communication Standard (HCS) to align with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and published it in the Federal Register in March 2012 (77 FR 17574). Information and training may be obtained at: All employees including Soldiers, Army civilians, and embedded contractors must be trained on the new label elements and SDS format.

https://safety.army.mil/soh/OCCUPATIONALHEALTH/GloballyHarmonizedSystemGHS/tabid/2389/Default.aspx

#### FIRE EXTINGUISHER TRAINING

A.6.4. Personnel with responsibilities for using fire extinguishers receive training on general principles of fire extinguisher use and the hazards involved with incipient stage firefighting upon initial assignment and at least annually thereafter. DA Pam 385-64, paragraph 6-10.

#### A&E AMNESTY PROGRAM

A.7. Installation/Garrison Commanders establish, implement and publicize an A&E Amnesty Program IAW AR 710-2, paragraph 1-4.n and DA Pam 385-64, paragraph 2-18.

#### Reference(s): AR 710-2 paragraph 1-4n and DA Pam 385-64 paragraph 2-18

- A.7.1. Garrisons, installations, and forward operating bases having elements that use military munitions will establish an AE Amnesty Program DA Pam 385-64, paragraph 2-18.
- A.7.2. A&E Amnesty Program SOP must include specifications identified in DA Pam 385-64, paragraph 2-18.
- A.7.3. Conduct annual amnesty days for collection of abandoned/unauthorized A&E IAW AR 710-2.
- A.7.4. Provide amnesty collection containers at each ASP (tactical/retail installations); commanders may authorize amnesty containers for A&E items in locations other than the ASP IAW AR 710-2.
- A.7.5. Containers available 24-hours a day, seven days a week for recovery of amnesty A&E, IAW AR 710-2 and DA Pam 385-64.
- A7.6. Military personnel assigned duties associated with A&E briefed every 180 days on the Amnesty Program and prior to operations, exercises or training events. Army civilian, foreign national, and contract personnel assigned A&E duties associated with A&E at Ammunition Supply Points

#### **B - EXTERNAL/INTERNAL STANDARD OPERATING PROCEDURE (SOP)**

EXTERNAL STANDARD OPERATING PROCEDURE (SOP)

B.1. Ammunition Support Activity (ASA) to develop an External SOP to provide to customers that outlines the ASA's operations and procedures to be followed in requesting, receiving, and returning ammunition and residue. External SOP will be reviewed upon change of command or process changes.

Reference(s): AR 710-2, paragraph 3-39.a.

#### INTERNAL SOPS FOR HAZARDOUS OPERATIONS

B.2 An SOP has been developed for every hazardous operation. (Critical if one or more hazardous operations lack an SOP)

Reference(s): DA Pam 385-10 chapter 18

B.3. SOPs based on the results of a complete risk assessment of all phases of the task or operation and resulting recommended controls. SOPs for Hazardous Operations reviewed and concurred with by subject matter experts (SMEs) within the executing organization and supporting organizations. At a minimum, SOPs will be reviewed annually or at change of command. (Critical if the Hazard Analysis not completed/staffed)

Reference(s): AR 385-10 paragraph 18-5a, 18-5b; DA Pam 385-10 chapter 9

B.4. Written SOPs developed and used for all explosives operations to ensure workers have the information necessary to perform assigned tasks safely. Internal SOPs for hazardous operations must meet the criteria specified in DA Pam 385-10 to be considered acceptable. Internal SOP steps documented in logical sequence; identify work space and equipment requirements; specifically identify safety procedures and equipment required to protect worker throughout processes. (Critical if the SOP's not developed and/or staffed)

**Reference(s)**: AR 385–10; DA Pam 385-10 paragraph 9-4; DA Pam 385-64 paragraph 2-4

- B.4.1 US Army Materiel Command (AMC) major subordinate commands (MSC), including subordinate installations and activities that perform the ammunition operations make certain SOPs meet criteria delineated in AMC-R 700-107 (https://hqamc.aep.army.mil/Pages/Home.aspx).
- B.5. Fire prevention requirements incorporated in SOPs as appropriate.

Reference(s): DA Pam 385-64, paragraph 6-8

B.6. Review-concurrence: A process developed to have component personnel with specialized knowledge (safety, environmental, logistics, quality assurance, fire and emergency services, engineering, and so on) review the External SOP for clarity, compliance with standards and regulation, and conformity with accepted practices in their specialty area. The cover sheet with the draft and final version of the SOP will contain the following information: Activity name; name of process; unique SOP number; date of SOP; name of preparer, title, and phone number; signatures of individuals and their office titles responsible for reviewing and concurring with SOP (e.g. safety, environmental, quality assurance, fire and emergency services, engineering); name and title of approving authority and date of approval.

Reference(s): DA Pam 385-10, paragraph 9-7

B.7. Activity established a method for reviewing and revising Internal SOPs based upon complexity and hazardous nature of the process.

Reference(s): DA Pam 385-10 paragraph 9-8

B.8. Supervisors or persons-in-charge indicate he or she has read; understands operations involved; verified personnel are trained and understand SOP; and task can be accomplished in a safe and efficient manner.

Reference(s): DA Pam 385-10 paragraph 9-9

B.9. Employees/Operator/Task Performer will read and indicate they understand all the requirements of the SOP relative to their job and can execute it in an efficient, effective, and safe manner by following the SOP. A statement will be provided and provisions made for the operator to sign under the statement. The statement will attest to the fact that they have read or have had read to them and understand the SOP.

Reference(s): AR 385-10, and DA Pam 385-10, paragraph 9-10

B.10. SOPs for the task readily available to the supervisors and operators. For explosives and chemical operations the SOP will be posted in the work area.

Reference(s): DA Pam 385-10, paragraph 9-11

B.11. An index will be maintained of all approved SOPs and will contain the following information: SOP number; title of SOP; name of office submitting SOP; date of approval, and next review date.

Reference(s): DA Pam 385-10, paragraph 9-12

#### C - DEMILITARIZATION/DISPOSAL

#### DEMILITARIZATION

C.1. Installation surveillance organization will monitor A&E demilitarization operations and sites.

Reference(s): SB 742-1, paragraph 10-6.b.

C.2. The surveillance organization will develop an Internal SOP to support demilitarization operations.

Reference(s): SB 742-1, paragraph 10-6.c.

C.3. The installation demilitarization SOP will be submitted to the ammunition surveillance organization for review, concurrence and approval prior to start of operation.

Reference(s): SB 742-1, paragraph 10-6.a.

#### OPEN BURNING/OPEN DETONATION (OB/OD)

C.4. Resource Conservation and Recovery Act (RCRA) permits are required for OB/OD. All demilitarization destruction (e.g. incineration, static detonation chambers, and thermal treatments) requires RCRA permit.

Reference(s): 42 USC Section 6901, 40 CFR Part 264 and applicable State Statutes

C.5. OB/OD limits and procedures (SOP) must be in agreement with RCRA permit.

Reference(s): 42 USC Section 6901, 40 CFR Part 264, and applicable State Statutes

#### DISPOSAL OF EXCESS PROPELLING CHARGES

C.6. Excess propelling charges burned during training events.

**Reference(s)**: 40 CFR Part 260, Section 266.202(a)(1)(i) and TM 9-2350-311-10, paragraph 5-4(b)

#### **D - FACILITIES AND EQUIPMENT**

#### MATERIALS HANDLING EQUIPMENT (MHE) AND LIFTING DEVICES

D.1. By TB definition a lifting device is any device or component used to raise, lower, hold, or position a load from one location or elevation to another. Examples of lifting devices include: forklift trucks, cranes, manual or motorized pallet jacks, hoists, wreckers, A-frames, slings, ropes, wire ropes, hooks, O-rings, pear rings, spreader bars or lifting clamps, beams, jacks, safety stands, and jack stands

**Reference(s)**: DA Pam 385-64, paragraph 2-17 and TB 43-0142, Safety Inspection and Testing of Lifting Devices.

- D.1.1. Rated load test and written certification must be provided to using activities and load rating IAW TB 43-0142, paragraph 6.f.
- D.1.2. Periodic inspection and function test of lifting devices at least annually and prior to use if idle for six months IAW TB 43-0142, paragraph 4.c.
- D.1.3. Forklifts stenciled on the side of the mast to the operators left with the load rating and the date of the next periodic inspection in letters one inch or larger

#### **SCALES**

D.2. Calibration of test, measurement, and diagnostic equipment (TMDE) at completed at appropriate intervals. DA Label 80 (U. S. Army Calibrated Instrument) reflects new calibration expiration date.

Reference(s): TB 43-180

#### FIRE EXTINGUISHERS

D.3. A minimum of two fire extinguishers, suitable for the hazards involved, available for immediate use when A&E handled.

Reference(s): DA Pam 385-64, paragraph 6-10

#### **VEGETATION AND EROSION CONTROL**

D.5. Fire prevention requirements meet established regulatory guidelines.

Reference(s): DA Pam 385-64, paragraph 6-8

D.6. Firebreaks will be kept clear of all readily combustible material, such as dry grass, dead wood, or brush. A 50-foot firebreak maintained around each aboveground magazine, operating building or location, outdoor storage site, and ready explosives facility. A five-foot firebreak maintained around earth-covered magazine ventilators. A five-foot firebreak maintained on both sides of fences. Where access to the outside of the fence is not available (such as, garrison or installation boundaries) the fire break will be doubled on the interior side of the fence.

Reference(s): DA Pam 385-64, paragraph 6-9

#### HAZARDOUS MATERIAL STORAGE

D.7. Storage of limited quantities of paints, lubricants, adhesives meet established standards. Flammable storage located at least 50-feet from explosives locations. At least one fire extinguisher, suitable for the type of materials involved, will be readily available for use.

**Reference(s)**: DA Pam 385-64, paragraph 6-8.f and 29 CFR 1910.106.

D.8. Safety Data Sheets (SDS), formally known as Material Safety Data Sheets (MSDS) must be available for all items on-hand and accessible to all employees to assure proper handling, storage, and emergency response preparedness IAW AR 710-2.

Reference(s): AR 710-2, paragraph 1-30

#### **E - MATERIEL MANAGEMENT**

#### SAMPLE INVENTORY (CATEGORY I AND NON-CATEGORY I)

E.1. First Count Inventory accuracy of A&E is 95 percent.

Reference(s): AR 710-2, paragraph 3-37.f.

E.2. Class V items with serial numbers (S/N) required to be on record by S/N and lot number. (Critical if serial numbered munitions not on accountable record by serial number/lot number)

Reference(s): AR 710-2 paragraphs 2-44 and 3-30

#### INVENTORY FREQUENCY AND PROCEDURES

E.3. Location survey accuracy of A&E is 98 percent IAW AR 710-2. Location surveys conducted to verify of the recorded location data with the physical location of assets. A location survey will be conducted before a closed inventory.

Reference(s): AR 710-2 table 1-3

E.4. Inventories conducted at appropriate intervals. (Critical if the munitions not inventoried at correct interval)

Reference(s): AR 710-2, paragraph 3-37

E.5. Inventory procedures comply with regulatory guidelines. (Critical if inventory procedures not conducted properly e.g. missing signatures, missing counts, Counts incorrect, not conducted)

Reference(s): AR 710-2, DA Pam 710-2-1, and DA Pam 710-2-2.

E.6. Discrepancies in stock record balances found during inventory researched and adjusted (when required).

Reference(s): DLM 4000.25-2, Table C6.T.3 and AR 735-5, paragraph 14-34

E.7. When processing inventory adjustments, no A&E loss shall be attributed to an accountability or inventory discrepancy unless determined through investigation that the loss was not the result of theft IAW Department of Defense Manual (DODM) 5100.76: Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (A&E), Enclosure 8. DA Form 444 (Inventory Adjustment Report) includes causative research (when required).

Reference(s): DLM 4000.25-2, Table C6.T.3 and AR 735-5, paragraph 14-34

#### **RECEIPTS**

E.8. The Accountable Officer is financially liable and has direct responsibility of receipts. The Accountable Officer will sign the DD Form 1348 (Issue Release/Receipt Document) name, rank, and the Julian date in block 22. Only the Accountable Officer or persons authorized by delegation authority will sign for supplies.

Reference(s): DA Pam 710-2-1 paragraph 2-32e and AR 735-5, paragraph 2-8a(3)

E.9. Receipts processed by receiving section within 24 hours from time received.

Reference(s): DA Pam 710-2-2, paragraph 8-2

E.10. Stock control prepares a DA Form 3151–R before the ammunition is off-loaded and stored. Warehouse locations selected from the storage plan. The DA Form 3151–R is forwarded to the storage section.

Reference(s): DA Pam 710-2-2, paragraph 24-25

E.11. Storage section inventories receipted items sends the completed DA Form 3151 to stock control; stock control compares DODIC, NSN, lot number, condition code and quantity received between the DD Form 1348s and DA 3151–R. If there is a discrepancy, storage section rechecks the actual receipts. If rechecking does not resolve the discrepancy, prepare SF 364 (Report of Discrepancy).

Reference(s): DA Pam 710-2-2, paragraph 24-25.

E.12. All documents supporting the receipt are completed, assembled, and filed in document number sequence section IAW DA Pam 710-2-2, paragraph 24-25.c.

Reference(s): DA Pam 710-2-2, paragraph 24-25.c.

#### **SHIPMENTS**

E.13. Directive received for shipment; stock control section selects the stocks and obligates them on the due-out record for shipment.

Reference(s): DA Pam 710-2-2, paragraph 24-26.

E.14. Stock control prepares DA Forms 3151–R and sends to the surveillance section to verify the condition and suitability of the stocks selected. Inventory and inspect the shipment before and after loading. Completed DA Form 3151–R, signed by the vehicle drivers and the checker provided to stock control for final processing. Stock control verifies the returned DA Form 3151–R against suspense copies and prepares the Transportation Control and Movement Document (DD Form 1384). Post the stock records using the completed DA Form 3151–R.

Reference(s): DA Pam 710-2-2, paragraph 24-26.

E.15. Hazmat certifier will review/sign the shipping papers. Certifier must have successfully completed the 80-hour HAZMAT certification course. (Critical if a non-certified person signs the shipping papers or hazmat certification not signed/developed)

**Reference(s)**: Defense Transportation Regulation (DTR) 4500.9-R, chapter 204; 49 Code of Federal Regulations (CFR), part 172, subpart H; AFMAN 24-204(Interservice)/TM 38-250/MCO P4030.19I/NAVSUP Pub 505/DLAI 4145.3.

E.16. Customs clearance (if required)

Reference(s): 19 CFR Subpart A, § 161.2

E.17. Report of Shipment (REPSHIP) message prepared. (Transportation Office).

Reference(s): DTR 4500.9-R, Part ii, Chapter 205, paragraph L

E.18. All documents supporting the shipment are completed, assembled, and filed in document number sequence section.

Reference(s): DA Pam 710-2-2, paragraph 24-26

#### SIGNATURE CARDS

E.19. Signature cards (DA Form 1687) on file accompanied by assumption of command and/or battalion S4/property book officer orders for supported units.

Reference(s): AR 710-2, DA Pam 710-2-1, DA Pam 710-2-2

E.20. DA Forms 1687 for Class V comply with established standards.

Reference(s): DA Pam 710-2-1, DA Pam 710-2-2

#### ISSUE/TURN-IN DOCUMENTATION AND PROCEDURES

E.21. Issue and turn-in documentation complies with established requirements.

Reference(s): DA Pam 710-2-2, DA Pam 710-2-1

- E.21.1. DA Form 581 (Request for Issue) completed IAW DA Pam 710-2-1, Paragraph 11-16.
- E.21.2. DA Form 581 (Request for Turn-In: Live) completed IAW DA Pam 710-2-1, paragraph 11-16 and figure 11-9, to include requestor/approver signatures in blocks 13c and 14c respectively.
- E.21.3. DA Form 581 (Request for Turn-In: Residue) completed IAW DA Pam 710-2-1, paragraph 11-16 and figure 11-10 to include requestor/approver signatures in blocks 13c and 14c respectively.
- E.22. DA Form 5811 (Certificate Lost or Damaged Class 5 Ammunition Items) required by using unit to account for shortages between the quantity of ammunition turned in and the quantity issued (less expended). The first LTC (O-5) or equivalent (GS-13 or above) in the chain of command, or MAJ appointed on orders to a LTC or above command position, will determine appropriate action and sign the form. (Critical if organization does not require for reconciliation)

Reference(s): AR 710-2 and DA PAM 710-2-1

E.23. DA Form 5692 (Ammunition Consumption Certificate) on file for items requiring a signed statement for items consumed. DA Form 5692 consumption documents requires Unit Range Safety Officer (SSG or above) to certify quantity drawn, quantity to be returned, and quantity consumed in training at the range IAW DA PAM 710-2-1 paragraph 11-14.a(2). (Critical if organization does not require for reconciliation)

Reference(s): DA PAM 710-2-1 paragraph 11-14a(2)

- E.24. Escort services for A&E shipments moving on an installation include **Reference(s)**: DODM 5100-76, Enclosure 10 and AR 190-11 paragraph 7-10
  - E.24.1. CAT I Commercial/Organic/Unit Move: Escort service between all points on the installation during and after normal duty hours IAW DODM 5100-76, Enclosure 10.
  - E.24.2. CAT II IV Escort service subject to the installation commander's discretion based on the threat, FPCON levels, local on-station A&E routing procedures, distances between origin and destination points, road conditions, weather, case-by-case on station routing instructions, etc IAW DODM 5100-76, Enclosure 10.
  - E.24.3. Shipments including inbound/outbound CAT I and II A&E-laden Government motor vehicles transiting between facilities such as depots, weapons stations, research and development facilities, posts/camps, bases, stations, and COCO facilities shall be provided escorts IAW DODM 5100-76, Enclosure 10.

#### INERT CERTIFICATION

E.25. DA Forms 581 (Request for Turn-In: Residue) requires a prescribed inert certification statement.

Reference(s): AR 710-2, DA Pam 710-2-1 figure 11-10

E.26. Personnel who inspect, process, or document material as safe or hazardous are certified, in writing, by the DOD Component directly responsible for controlling the transfer or release of material potentially presenting an explosives hazard (MPPEH), material documented as an explosive hazard (MDEH), or material documented as safe (MDAS), as being technically qualified according to the standards provided in the Instruction and in DOD Component procedures for management of MPPEH to perform such functions and, in the case of contractor personnel, be certified in conformance with contract requirements.

**Reference(s)**: DODI 4140.62 (Management and Disposition of Material Potentially Presenting an Explosive Hazard), enclosure 3, paragraph 2f.

E.27. Documents transferring residue to DLA-DS and/or qualified recycling program (QRP) contain prescribed inert certification/verification statement signed by qualified personnel. (Critical if the residue document missing certification, or personnel not appointed in writing)

Reference(s): DOD 4160.28-M V3 (Defense Demilitarization: Procedural Guidance)

#### **RESIDUE OPERATIONS**

E.28. Installations must be in possession of an automatic returns listing (ARL) for non-consumable residue items requiring return for reuse. The ARL for Class V is issued by Joint Munitions Command IAW AR 725-50 and SB 755-1.

Reference(s): AR 725-50 and SB 755-1

E.29. All residue containing hazardous constituents must be stored protected from the elements to preclude possible environmental contamination.

Reference(s): Waste Profile Notices (WPN)

- E.30. Installations may operate a QRP and direct sell residue not identified on the ARL. **Reference(s)**: 10 USC Section 2577, 32 CFR 172, DODI 4715.4
- E.31. Expended cartridge case sold through a QRP must be deformed to prevent reloading. Installations operating a brass deformer and/or safety certification unit must have a SOP for its operation and maintain records of brass processed and sold.

Reference(s): 10 USC Section 2577, 32 CFR 172, DOD 4160.21 M

#### CATALOG DATA

E.32. Catalog data must match the information found within the Army Master Data File (AMDF). The AMDF is located within FEDLOG. Hazard classification data is obtained through Joint Hazard Classification System (JHCS). The JHCS is located on the Munitions History Program (MHP) at: <a href="https://mhp.redstone.army.mil">https://mhp.redstone.army.mil</a>, registration required.

Reference(s): AR 710-2, paragraph 3-4

#### ACCOUNTABILITY OF OPERATIONAL LOAD AMMUNITION

E.33. Operational load ammunition <u>not</u> expended in training.

Reference(s): AR 710-2 paragraph 2-44

E.34. Operational load ammunition maintained on property books IAW ALARACT 145/2013 Accountability of Operational Load Ammunition, DTG 101841Z Jun 13, requires.

**Reference(s)**: ALARACT 145/2013 Accountability of Operational Load Ammunition, DTG 101841Z Jun 13

E.35. Ammunition on property books inventoried IAW DA Pam 710-2-1, paragraph 9-9 and 9-10.b.

Reference(s): DA Pam 710-2-1 paragraph 9-9 and 9-10b

#### F - PHYSICAL SECURITY

#### LOCKS AND HASPS

F.1. Proper use and types of high security locks/hasps and secondary locks for the storage of A&E.

Reference(s): Department of Defense Lock Program; AR 190-11 paragraph 5-6

F.2. Padlocks locked to the staple or hasp when the area of container is open to preclude theft, loss, or substitution of the lock.

Reference(s): AR 190-11 paragraph 3-8m

#### RESTRICTED AREA SIGNAGE

F.3. Areas that have been designated as restricted require signage IAW AR 190-11, paragraph 4-15.e. This paragraph provides specific wording for restricted area signs, but allows for continued use of signs containing essentially the same wording until replacement is required.

Reference(s): AR 190-11 paragraph 4-15e

#### INTRUSION DETECTION SYSTEM (IDS)

F.4. Category I and II storage facilities and structures will be protected by IDS. Facilities without operational IDS will have armed guards posted 24 hours a day to maintain constant, unobstructed observation of the storage structures, prevent any unauthorized access to the protected structure, and make known any unauthorized access to the structure. (Critical if non-existent or non-operational IDS on Category I/II storage facilities and or guards not present)

Reference(s): AR 190-11, paragraph 5-2.a. (2) (a)

F.5. Signs clearly announcing the presence of an IDS system will be displayed on ammunition storage rooms, magazines, or perimeter barriers.

Reference(s): AR 190-11, paragraph 5-10.

F.6. IDS must be checked/ tested at prescribed intervals.

Reference(s): AR 190-11, paragraph 3-6.

F.6.1. US Army Materiel Command (AMC) major subordinate commands (MSCs); their subordinate installations and activities, to include Government-Owned Contractor-Operated (GOCO) facilities; unit materiel fielding points (UMFP); staging areas; program, project, or product managers; and separate reporting activities make certain testing conducted IAW AMC Supplement 1 to AR -190-11 (<a href="https://hqamc.aep.army.mil/Pages/Home.aspx">https://hqamc.aep.army.mil/Pages/Home.aspx</a>).

#### KEY AND LOCK CONTROL

F.7. Commanders or their designees (e.g., individual unit commanders with A&E resources directly within their control) who are storing or securing A&E appoint in writing A&E lock, combination, and key custodians. Key and lock custodians not persons who are authorized unaccompanied access to A&E storage areas IAW.

Reference(s): DoDM 5100.76, Enclosure 4, Section 10; AR 190-11, paragraph 3-8.I.

- F.7.1 Key control training program developed to train responsible personnel in lock and key control procedures and responsibilities. Training should be comprehensive and provide a strategic understanding of key and lock control and protection requirements. Training provided on an annual basis IAW DoDM 5100.76, Enclosure 4, paragraph 10.
- F.8. Storage of A&E keys and combinations for in an authorized container.

Reference(s): AR 190-11, paragraph 3-8.h

- F.8.1. CAT I and II: General Services Administration (GSA)-approved Class 5 security container or GSA-approved Class 5 weapons container IAW DoDM 5100.76.
- F.8.2 CAT II and IV: Containers of at least 12-gauge steel (or material equivalent strength) security with a GSA-approved built in combination lock or a built in combination lock meeting Group 1 IAW DoDM 5100.76.
- F.9. Procedures established to preclude access of stored A&E keys which require two-person control.

Reference(s): AR 190-11, paragraph 3-8.h

F.10. Combinations changed when the lock is placed into use, annually, whenever a person knowing the combination no longer requires access, or when the combination subject to compromise.

Reference(s): DoDM 5100.76, AR 190-11 paragraph 3-8p, AR 380-5

- F.10.1. Change of combinations recorded using Standard Form (SF) 700 (Security Container Information) IAW AR 190-11, paragraph 3-8.p.
- F.10.2. Completed SF 700 for each security container affixed to the inside of the security container/safe lock drawer IAW AR 380-5.
- F.11. Development/use of roster to determine authorization to draw/issue of A&E keys on a DA Form 5513 (Key Control Register and Inventory).

Reference(s): AR 190-11 paragraph 3-8b

F.12. Retention of completed DA Form 5513's for one year IAW AR 190-11, paragraph 3-8.e.

#### Reference(s): AR 190-11 paragraph 3-8e

F.13. Inventories of keys, combinations and locks conducted semi-annually by a disinterested party or person not responsible or authorized unaccompanied access. Inventory will contain a record of keys, locks, key serial numbers, lock serial numbers, location, and the number of keys maintained for each lock. This record will be secured in the key depository/safe. (Critical if inventories not conducted at appropriate intervals or if keys/locks missing)

Reference(s): DoDM 5100.76, Enclosure 4, Section 10; AR 190-11 paragraph 3-8n

F.14. A&E lock and key inventory records will be retained in unit files for a minimum of one year. This record will be secured in the key depository/safe.

Reference(s): AR 190-11 paragraph 3-8n

#### ACCESS/ENTRY CONTROL

F.15. A pass, badge, or access roster, plus a registration system, to be used to admit properly identified authorized personnel to storage areas. (*Critical if a pass, badge or access system not developed and utilized*)

Reference(s): AR 190-11, paragraph 5-9.c.

- F.15.1. Vehicle and personnel gates will be secured except when it is necessary to allow authorized entry into or exit from the area
- F.15.2. Persons requiring frequent recurring entrance to the area will either be listed on an entry control roster, prepared by the responsible storage commander, or issued a photographic security badge which clearly establishes the authority to enter. The roster will contain as a minimum, the name, grade, and unit or organization of each authorized person.
- F.16. Vehicles and personnel shall be subject to searches and random inspections upon entry to and exit from A&E areas.

Reference(s): DoDM 5100.76, Enclosure 6

F.17. Access to areas storing A&E for all personnel shall be recorded (manually or electronically). The records of access shall be retained for 1 year.

Reference(s): DoDM 5100.76, Enclosure 4, paragraph 9(a).

#### SECURITY FENCING

F.18. Fence fabric shall be chain link (e.g. galvanized, aluminized, or plastic-coated woven steel, 2-inch square mesh made from 9-gauge diameter wire, excluding coating that meets Federal Specification RR-F-191K. In Europe, fencing may be North Atlantic Treaty Organization Standard Design Fencing).

Reference(s): DoDM 5100.76, Enclosure 6.

F.19. The minimum height of the fence fabric will be six feet excluding top guard/outrigger; bottom of the fence fabric will extend to within two inches of firm ground IAW DoDM 5100.76, Enclosure 6. Surfaces will be stabilized in areas where loose sand, shifting soils, or surface waters may cause erosion and thereby assist an intruder in penetrating the area IAW AR 190-11, paragraph 5-3.d-e.

Reference(s): AR 190-11 paragraph 5-3d-e.

F.20. Gates, unless manned 24-hours a day, will be provided with an approved lock. Hinge pins and hardware will be welded or otherwise modified to prevent easy removal.

Reference(s): AR 190-11 paragraph 5-3g

F.21. Clear zones shall be established to extend a minimum of 12 feet on the outside and 30 feet on the inside (or to the maximum extent within available land space if minimum requirements cannot be met). Clear zones for A&E will be free of all obstacles, topographical features, and vegetation exceeding eight inches in height, which reduces the effectiveness of the physical barrier, impedes observation, or provides cover and concealment of an intruder.

Reference(s): DoDM 5100.76, Enclosure 6; AR 190-11, paragraph 5-3.j.

#### SECURITY LIGHTING

F.22. Exterior building and door lighting shall be provided for all structures storing CAT I and II items. The lighting shall be sufficient to allow detection of unauthorized activity. New security lighting systems will not be programmed for Category III and IV facilities unless determined necessary based on an assessment of the local threats and vulnerabilities.

Reference(s): DoDM 5100.76, Enclosure 6; AR 190-11, paragraph 5-4.a

#### COMMUNICATIONS

F.23. Storage areas shall have a primary and backup means of communications that permit notification of emergency conditions. The backup system shall be a different mode than the primary. Radio may be one of the modes of communication. The communication systems shall be tested with results documented daily. (Critical if no primary and secondary means of communication exists/operational)

Reference(s): DoDM 5100.76, Enclosure 6

#### SECURITY CONSTRUCTION STATEMENTS (SCS)

F.24. A qualified engineer personnel will verify the structure composition of A&E storage facilities (for example, walls, ceilings, roofs, floors, and doors).

Reference(s): AR 190-11 paragraph 2-2d.

F.24.1. Statements will be prepared on DA Form 4604 (Security Construction Statement).

- F.24.2. Statements will indicate the highest construction category met for storage of A&E (for example, Category I, II, III, or IV A&E items) and date of applicable regulation.
- F.24.3. The DA Form 4604 will be affixed to the interior wall of each A&E storage facility, AR 190-11, paragraph 2-2.d.
- F.25. A blanket statement on DA Form 4604 may be issued at an installation for all facilities, such as ammunition magazines, constructed according to the same specifications.

Reference(s): AR 190-11 paragraph 2-2d.

- F.25.1. Under these circumstances, a copy of the DA Form 4604 need not be affixed to the interior wall of each individual storage structure, but must specifically identify the facilities by number and location and be readily available for inspection, AR 190-11, paragraph 2-2.d.
- F.26. The DA Form 4604 will be revalidated by engineer personnel every five-years, AR 190-11.

Reference(s): AR 190-11 paragraph 2-2

#### PHYSICAL SECURITY INSPECTIONS

F.27. Physical security inspection of A&E storage facilities shall be conducted at intervals not to exceed 18 months.

Reference(s): DoDM 5100.76

- F.27.1. The U.S. Army Military Police Security Management System (SMS) will be used to gather and record inspection information. DA Form 2806-1 (Physical Security Inspection Report) may be used if SMS is not immediately available.
- F.27.2. A copy of the physical security inspection report will be provided to the Unit Commander or Organization Director, Commander or Director of next higher level, and the Installation Physical Security Officer (PSO).

#### COMMAND ORIENTED AA&E SECURITY SCREENING AND EVALUATION

F.28. Security screening and evaluation of personnel involved in the control, accountability, and shipment of A&E. DA Form 7281-R (Command Oriented Arms Ammunition & Explosives Security Screening and Evaluation Report) will be used.

Reference(s): AR 190-11 paragraph 2-11

F.29. Security screening and evaluation will be repeated every three years.

Reference(s): AR 190-11 paragraph 2-11

#### **G-STORAGE**

#### STORAGE PRACTICES/CONDITIONS

G.1. General and specific A&E storage requirements comply with regulatory quidelines.

Reference(s): DOD 4145.26-M, Chapter 9 and in DA Pam 385-64, Chapter 3

- G.1.1. Unpackaged AE (such as, loose rounds) or single fiber containers of AE will not be stored in magazines containing AE that are packed per approved drawings IAW DA Pam 385-64.
- G.2. A&E stored in containers, banded, and/or sealed to reflect the integrity of the contents.

Reference(s): DODI 5100-76M, enclosure 6, paragraph 2d

#### MAGAZINE DATA CARDS (MDC)

- G.3. DA Form 3020-R, MDC, on all A&E in a storage location for more than 24-hours. **Reference(s)**: AR 710-2 paragraph 2-41
  - G.3.1. DA Form 3020-R comply with DA Pam 710-2-1, figure 11-8. (Note: AMC R 740-25, paragraph 1-5.i, mandates the use of AMC Form 1385 (Magazine Data Card) or AMC Form 1385-1 (Multi-lot Trailer Card) at AMC installations).

#### LIGHT (LITE) BOX MANAGEMENT

G.4. Incomplete boxes of ammunition and explosives may be stored in magazines containing items which are packed in accordance with approved drawings; the boxes must be marked conspicuously to identify the contents and quantities and placed in designated locations.

Reference(s): DA Pam 385-64 paragraph 3-2h

G.5. Marking instructions for light boxes comply with regulatory guidance.

Reference(s): MIL-STD 129R paragraph 5.14.4.2f.

#### INTER-SERVICE & INTRA-GOVERNMENTAL SUPPORT AGREEMENTS

G.6. Inter-service and intra-governmental support agreements in place and reviewed as required.

Reference(s): DODI 4000.19 (Support Agreements), Enclosure 4, paragraph F (22)

G.6.1. Memorandum of Understanding (MOU) in place between customer unit(s) and the ASA to document specific terms and responsibilities for storage at the Ammunition Supply Point in writing (e.g. submission of inventory for new explosives weight (NEW) calculations; roster of personnel authorized to enter

ASP for access to storage; emergency access capabilities; storage requirements; security construction statements; contact information in the event of an emergency or unforeseen event).

G.6.2. Memorandum of Agreements (MOA) in place and reviewed as required.

#### H - TRANSPORTATION

#### TRANSPORTATION OPERATIONS

H.1. All personnel signing certification statements on shipping papers must be appointed in writing by the activity or unit CDR or designated representative. The appointment must include the <a href="scope of authority">scope of authority</a> and <a href="exprisation-date">expiration date</a>. A copy of appointment orders will be provided to the Transportation Office (TO).

Reference(s): Defense Transportation Regulation (DTR) 4500.9-R chapter 204

H.2. In all cases, the individual who signs the certification statement on shipping papers (e.g., Form DD Form 2890, DOT mandated forms, BL, CBL, and Shipper's Declaration for Dangerous Goods) by any mode of transportation, military or commercial, must personally inspect the HAZMAT item certified.

Reference(s): DTR 4500.9-R chapter 204 paragraph D.5

H.3. "The following certification included in the Descriptions of Articles space, when hazardous materials are shipped by conveyances other than air Transportation Service Providers (TSP)"

**Reference(s)**: 49 CFR 172.204; The US Government Freight and Transportation Handbook, Chapter 3, section 20 (Hazardous Materials)

"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 Department of Transportation."

**Certifying Official** 

#### TRANSPORTATION FACILITIES GUIDE (TFG) & SECURE HOLDING AREA (SHA)

H.4. DOD facilities that meet the A&E shipping and receiving criteria as published in the Transportation Facilities Guide (TFG) are required to assist commercial Transportation Service Providers (TSP) transporting DOD shipments of A&E, classified materials, and CCI by providing safe holding areas in the interest of public safety and national security. TSPs may seek safe haven during emergencies or other circumstances beyond the TSP's control, for delivery or awaiting shipment loading, or while in transit. When considering carrier requests for assistance, installation commanders must take into account the current force protection condition and the security requirements therein as well as any QD safety requirements, depending upon the commodity and NEW of any explosives involved.

#### Reference(s): The DTR 4500.9-R, chapter 205 paragraph Q

H.5. Transportation Officers (TO) updates the TFG on a semi-annual basis (1 March and 1 September) for installations with SHAs or on an annual basis for installations not participating in the secure holding area program.

Reference(s): The DTR, chapter 201, paragraph P

#### **SECTION II - AMMUNITION SURVEILLANCE**

#### A - AMMUNITION STOCKPILE RELIABILITY PROGRAM

#### AMMUNITION SUSPENSION, RESTRICTION, AND RELEASE PROGRAM

A.1 The installation master suspension record control is the responsibility of the ammunition surveillance organization. The program requires centralized maintenance and application of ammunition and explosives (A&E) suspensions, restrictions, and releases, located in Munitions History Program (MHP). (Critical if no process to ensure correct application of notices and CC for stocks on accountable records. Must receive distribution from all services as temporary suspension applies to all stocks regardless of owner.)

Reference(s): Supply Bulletin (SB) 742-1 paragraph 11-2b; Technical Bulletin (TB) 9-1300-385; Air Force Conventional Munitions - Restricted or Suspended (CMRS): <a href="https://www.my.af.mil/ammoprod/wm">https://www.my.af.mil/ammoprod/wm</a>; NAVSUP P801: <a href="https://www.ois.disa.mil/portal/nolsc.jsp">https://www.ois.disa.mil/portal/nolsc.jsp</a>; JMC direct email distribution <a href="mail.mil">usarmy.RIA.jmc.mbx.amsjm-qas@mail.mil</a>; AMCOM missile notices <a href="mail.mil">usarmy.redstone.amcom.mbx.g3-amcom-operatins-center@mail.mil</a>

A.1.1. The surveillance organization performs suspension checks on ammunition receipts, issues (to include shipments), and munitions locally issued for training.

#### CONTROL OF SUSPENDED STOCKS

A.2. Management of suspended stocks is intended to assist in the prevention of issue and use of unsuitable A&E. Control of suspended stocks in storage is the responsibility of the ammunition surveillance organization. The surveillance organization maintains a master suspension record. A temporary suspension issued by the Army, Navy/USMC or Air Force applies to all stocks regardless of owner. One control feature requires the ammunition surveillance organization to maintain a master suspension record.

**Reference(s)**: SB 742-1 paragraph 11-2.b, Single Manager of Conventional Ammunition (SMCA), ); TB 9-1300-385 paragraph 1-3b

A.3. Suspended material in storage is required to be identified by using two suspended tag-materials/suspended label-materials (DD Form 1575/1575-1) to identify an affected item. One tag is to be attached to the affected stock with the other attached to the associated magazine data card (MDC). (Critical if no process in place or evidence of tags being applied, tracked, and removed).

Reference(s): SB 742-1 paragraph 11-2b(4)

#### PROPELLANT STABILITY PROGRAM (PSP)

A.4. Management and maintenance of a local PSP is necessary at all installations that store propellant and propelling charges. Program compliance and proper execution

is critical in the management of the PSP due to inherent auto-ignition hazards. An annual review required for all stored propellant stocks. The data base containing propellant stability information is available in the MHP under the ASRP module. See appropriate Ammunition Information Notices (AIN) and the Propellant Management Guide (PMG) in MHP at <a href="https://mhp.redstone.army.mil/">https://mhp.redstone.army.mil/</a>. (Critical if program does not meet all requirements for PSP management e.g. (annual review, DSR annotation, memo attesting to review, information provided to JMC)

Reference(s): SB 742-1 chapter 13, AIN 036-12, AIN 058-14; Propellant Management Guide (PMG)

A.4.1. The surveillance organization manages the local PSP in compliance with SB 742-1, chapter 13.

#### **B-RECORDS AND REPORTS**

#### MUNITIONS HISTORY PROGRAM (MHP)

B.1. The purpose of the MHP application is to collect and store inspection and test data and track ammunition technical history quality assurance data. All organizations are required to use MHP to maintain DSR information. DSR cards used to record the technical history of each lot, serial number (S/N), or group of ammunition, and generally maintained by the surveillance organization. <a href="https://mhp.redstone.army.mil/">https://mhp.redstone.army.mil/</a>.

Reference(s): SB 742-1 paragraph 11-2 and Appendix B

- B.1.1 The surveillance organization maintains automated surveillance.
- B.2. Defect/remark codes required for all condition codes except A and K. Condition codes (CC) A and K should reflect remarks codes when appropriate, such as shelf life items with less than 12 months remaining shelf life DA Pam 700-19 paragraph 3-2i

Reference(s): DA Pam 700-19 paragraph 3-2i, SB 742-1 paragraph 11-2 and Appendix AB

B.2.1.1 The surveillance organization enters defect codes.

#### AMMUNITION CONDITION REPORTS (ACR)

B.3. Automated DA Form 2415 (ACRs) submitted for Army, Air Force, Marine Corps, Navy, and AMCOM owned assets.

Reference(s): DA PAM 750-8 paragraph 8-4, SB 742-1 paragraph 11-3a, AIN 083-13

#### **C - SURVEILLANCE INSPECTIONS**

#### PERIODIC INSPECTION (PI) PROGRAM

C.1. Conduct of A&E assets Pls. The inspections, at intervals range from two to 10-

years, ensure serviceability and/or identify deterioration trends or other specific defects that may affect the asset's safety and usability. PI posted to the DSR card and becomes part of the permanent lot history. The conventional ammunition inspection interval listing is located at: <a href="https://jmcsp.osc.army.mil/">https://jmcsp.osc.army.mil/</a>.

Reference(s): SB 742-1 paragraph 2-4d; AIN 085-12 and 085-12A

C.2. For all non-required stocks, navy owned/SMCA managed stocks, unserviceable/non-repairable ammunition, and all stocks in the Resource Recovery and Disposition Accounts (RRDA), whether serviceable or unserviceable, an SIS must be conducted to insure stocks are safe for continued storage and handling.

Reference(s): SB 742-1 paragraph 2-4e

#### CONDITION CODE K (CC-K) STOCKS

C.3. CC-K assigned to all ammunition lots received without a valid inspection. Typically, A&E shipments are accompanied with current inspection results annotated on DSRs by a Quality Assurance Specialist Ammunition Surveillance (QASAS) from the shipping installation. If installations receive A&E without proper documentation and none can be obtained, assets are placed into CC-K pending inspection and condition classification. All ammunition received from a using unit and not inspected for safety and serviceability will be assigned CC-K until a proper inspection is performed. Efforts should be made to conduct receipt inspection with 45 days of receipt.

Reference(s): SB 742-1 paragraph 2-4b(1), AR 725-50 paragraph 5-44 c. (2) (a)

#### STORAGE MONITORING INSPECTIONS (SMI)

C.4. Most guided missile systems and high-value conventional ammunition items are desiccated to control humidity. Monitoring of the humidity level accomplished by observation of humidity indicator cards installed on the munitions container during SMIs. SMIs must be conducted per requirements and intervals of the individual system. SMI intervals vary (usually three to 18 months), but may be shortened at the discretion of the assigned QASAS, based on storage conditions.

Reference(s): SB 742-1 paragraph 2-4f, TBs, TMs

C.5. MHP used to document SMI results and scheduling of next inspection.

Reference(s): SB 742-1 paragraphs 11-2a and 11-2f

## CARTRIDGE ACTIVATED DEVICES/PROPELLANT ACTIVATED DEVICES (CAD/PAD)

C.6. Surveillance of CAD/PAD items complies with established guidelines. (Critical if no process for review of CAD/PAD shelf life)

Reference(s): SB 742-1 Appendix D, paragraph D-8.

C.7. Surveillance of aviation unit management, storage, and lot visibility of CAD/PAD items performed during Operational Load Inspections.

Reference(s): SB 742-1, Chapter 8

#### COMMERCIAL DYNAMITE

C.8. Straight dynamite, 60 percent and over in strength turned at regular intervals as directed and rotation documented on a locally devised form attached to the stack. (Critical if dynamite on hand not properly managed)

Reference(s): DA Pam 385-64 paragraph 21-4, table 21-1, SB 742-1 Appendix D paragraph D-14a

C.9. Other types of dynamite, ammonia, ammonia-gelatin, and gelatin dynamites will not be turned in storage. However, yearly, at the conclusion of the hottest portion of the year, a representative sample will be selected and the containers examined for evidence of nitroglycerin exudation on the exterior of the cartridge. If exudation is found, the lot or lots involved will have an ACR submitted through MHP with a recommendation for destruction. (Critical if dynamite on hand not properly managed)

Reference(s): SB 742-1 Appendix D paragraph D-14a

C.10. Dynamite contained in Canine Explosive Scent Kit (Dynamite, Exgel 40 and Exgel 75) has a shelf of 18 months. This dynamite need not be turned in storage. However, at the conclusion of the hottest portion of the year, a representative sample of the nitroglycerin based dynamite will be selected and examined for evidence of nitroglycerin exudation. (*Critical if dynamite on hand not properly managed*)

Reference(s): SB 742-1 Appendix D paragraph D-14a and AIN 036-14

#### **D – SURVEILLANCE SAFETY AND LOGISTICS**

#### AMMUNITION AND MISSILE INFORMATION NOTICES

D.1. Army AIN messages provide updated technical information to organizations with Army A&E responsibilities. The Joint Munitions Command (JMC) Ammunition Surveillance Division authors the AINs distributed throughout the Army. Army AINs typically valid for one-year, if not otherwise superseded, rescinded, or canceled. Army AIN messages available online through the MHP. To request direct email distribution email: <a href="mailto:usarmy.RIA.jmc.mbx.amsjm-qas@mail.mil">usarmy.RIA.jmc.mbx.amsjm-qas@mail.mil</a>.

Reference(s): SB 742-1 paragraph 10-10a.

- D.1.1 Surveillance organizations receive, implement, and distribute AIN messages in compliance with SB 742-1 para 10-10a.
- D.2. Navy and Marine Corps (NOLSC) AIN messages provided with Navy and Marine Corps A&E responsibilities. NOLSC distributes the Navy and Marine Corps AINs as necessary, and the AINs normally do not have an expiration date. A Navy and Marine Corps AIN update file must be maintained only for "new issue" AINs distributed after the latest publication printing. With each reprint of the publication, the "new issue" AINs are

incorporated into appendix A.

**Reference(s)**: SB 742-1 para 10-10a; NAVSUP P-801, Ammunition Unserviceable, Suspended and Limited Use, appendix A <a href="https://www.ois.disa.mil/portal/nolsc.jsp">https://www.ois.disa.mil/portal/nolsc.jsp</a>; direct email distribution at <a href="mailto:anna.lucas@navy.mil">anna.lucas@navy.mil</a>

- D.2.1. Surveillance organization with Navy and Marine Corps A&E responsibilities receive, implement, and distribute Navy/Marine Corps AIN.
- D.3. The Army uses MIN messages to provide timely update information to organizations with Army missile responsibilities. AMCOM originates and distributes MINs as necessary and sequentially numbered through the year, without an expiration date. AMCOM maintains all current MINs in MHP.

**Reference(s)**: SB 742-11paragraph 10-10b; Direct email distribution of MINs can be requested at usarmy.redstone.amcom.list.g6-asm-contact@mail.mil

D.3.1. Surveillance organization receive, implement, and distribute AIN messages in compliance with SB 742-1 para 10-10b.

#### AMMUNITION AND MISSILE MALFUNCTION INVESTIGATIONS

D.4. QASAS responsibilities include investigating and reporting malfunctions involving conventional ammunition, rockets, and guided missiles. Procedures for completing investigations and Ammunition Malfunction Reports (DA Form 4379), and Missile and Rocket Malfunction Reports (DA Form 4379-1), are contained in AR 75-1. Reports have been automated in the MHP program. Reporting Army ammunition malfunctions guidance can also be found in subject AIN in MHP.

Reference(s): AR 75-1, SB 742-1 paragraph 10-11b and applicable AINs

#### AREA INSPECTION PROGRAM

D.5. QASAS conduct area inspections periodically (daily when possible) of ammunition operations to ensure ammunition is properly handled, stored, and transported. Particular attention will be directed to safety or operational requirements such as compliance with SOPs, observance of explosives limits, proper handling of ammunition, minimum amounts of ammunition packages opened, etc. When discrepancies are noted, on-the-spot corrections will be made, when possible, and discrepancies will be recorded and reported according to locally established procedures.

Reference(s): SB 742-1, paragraphs 10-1, 10-4a, 10-9, and 10-11c

D.6. Problems that are brought to the attention of the QASAS must be investigated and reported through command channels to the appropriate commodity command.

Reference(s): SB 742-1 paragraph 10-11c

D.7. An internal reporting medium for all visits by QASAS personnel to operations is established.

#### Reference(s): SB 742-1 paragraph 10-9a

#### MAGAZINE INSPECTION PROGRAM

D.8. Magazines and other buildings, which ammunition and explosives are stored will be given a formal inspection annually. Inspections will be performed by QASAS who will record and report the results. A formal record of the inspection results will be maintained to include discrepancy reports forwarded to responsible installation activities (to include copy furnished installation safety office) and the resolution or corrective actions resulting from these reports.

**Reference(s)**: SB 742-1, paragraph 10-2 and chapter 1, paragraph 1-3h., DA Pam 385-64 paragraph 8-16 and 16-25d, Joint Publication DLAI 4145.11/TM 38-410/NAVSUP PUB 573/AFJMAN 23-209/MCO 4450.12A paragraph 10.23 and 8.13

- D.8.1 At the discretion of the QASAS in charge, the magazine inspection interval may be increased to a maximum of 24 months or reduced to a minimum of quarterly depending on activity or local conditions which would increase or decrease the possibility for deficiencies to occur. Reasons for changing intervals (lack of funding or personnel does not constitute justification) must be documented.
- D.8.2.Empty magazines inspected upon notification that all contents have been removed.
- D.8.3. Material for earth-cover over magazines and for barricades meet established standards.

- D.8.4. Material for earth-cover over magazines and for barricades will be reasonably cohesive (solid or wet clay or similar types of soil may not be used as they are too cohesive).
- D.8.5. Free from deleterious organic matter, trash, debris, and stones heavier than 10 pounds or larger than six inches in diameter.
- D.8.6. The larger stones limited to the lower center of fills and will not be used for earth cover over magazines. Compaction and surface preparation will be provided, as necessary, to maintain structural integrity and avoid erosion. When it is impossible to use a cohesive material, for example, in sandy soil, the barricade or the earth cover over magazines will be finished with a suitable material to ensure structural integrity.
- D.8.7. The earth-fill or earth-cover between earth-covered magazines may be either solid or sloped to meet the requirements of other construction features.

- D.8.8. A minimum of two-feet of earth must be maintained over the top of each magazine. See DA Pam 385-64, paragraph 8-16 for QD requirements for magazines with less than two feet of earth cover.
- D.8.9. Magazine ventilators to be operational and screened.

D.8.10Approved types of fusible links on ventilators and maintenance performed.

#### SURVEILLANCE INSPECTION OF A&E MATERIAL IN OUTSIDE STORAGE

D.9. Ammunition placed in outside storage given adequate continuing inspection to ensure that packaging is not damaged or deteriorated to the extent that ammunition contents are exposed in any manner not intended by the original design of the package.

Reference(s): SB 742-1 paragraph 10-3b

D.10. A formal examination made quarterly of each outside site in which ammunition is stored.

Reference(s): SB 742-1 paragraph 10-3b

D.11. PI's accomplished on required stocks in outside storage at one-half the interval set by the Conventional Ammunition inspection Interval Listing. The one-half interval will be shortened as determined by the QASAS in charge if packaging deterioration is found during performance of outside storage site quarterly inspection.

Reference(s): SB 742-1 paragraph 10-3c

#### RECEIPT/SHIPMENT/ISSUE DOCUMENT CLEARANCE

D.12. QASAS or properly trained designated personnel will approve all lots of ammunition, components, and related materiel designated for receipt/shipment/issue. (Critical if process does not exist for review prior to shipment or issue)

Reference(s): SB 742-1 paragraph 10-4a

- D.12.1. QASAS or designated person should work with supply personnel to assure oldest assets are issued first whenever possible.
- D.12.2. Clearance will include review of the DSR, suspension records, shelf-life and other applicable references.
- D.12.3. Lots and lot clusters overdue for PI will not be issued.
- D.12.4. Certain AINs / MINs must be attached to shipping/issue documents to disseminate to personnel inspecting, handling, or using subject ammunition. Reference: Applicable AIN/MIN for dissemination

instructions.

D.13. Shipments to Post, Camp and Station locations will have a minimum of six months remaining on their inspection cycle.

Reference(s): SB 742-1 paragraph 10-4c

D.14. Ammunition lots issued to OCONUS locations and to users/installations without a QASAS must have at least 18 months remaining on the inspection cycle.

Reference(s): SB 742-1, paragraph 10-4c.

D.15. Ammunition lots transferred between two OCONUS theaters or retrograded back to CONUS must have 18 months remaining on the inspection cycle.

Reference(s): SB 742-1, paragraph 10-4c.

#### SHIPPING AND RECEIVING CONVEYANCE INSPECTIONS

D.16. QASAS personnel review handling, storage and shipping operations for compliance with applicable safety and operational regulations.

Reference(s): SB 742-1 paragraph 10-4a

D.17. Inbound motor vehicles loaded with explosives, ammunition, or other hazardous material inspected by a competent person at a designated inspection station using DD Form 626. Inspection station will be far from hazardous and populated areas.

**Reference(s)**: DA Pam 385-64 paragraph 20-7, DTR 4500.9-R Chapter 204; SB 742-1 para 10-5.

D.17.1The surveillance organization inspects inbound and outbound A&E loaded vehicle.

#### MAJOR TRAINING AREA (MTA) OPERATIONS

D.18. QASAS assigned to live fire training areas responsible for providing technical assistance and support on ammunition quality and explosive safety matters to locally assigned personnel and to troops training at the facility.

Reference(s): SB 742-1 paragraph 10-11

- D.18.1. QASAS conduct periodic area inspections of the ammunition firing ranges and training areas.
- D.18.2. QASAS ensures discrepancies are corrected, recorded, and reported.

#### WATER PORT OPERATIONS

D.19. QASAS assigned to water ports act as advisor to the senior Department of Defense official operating the port and its support facilities (Military Traffic Management Command Detachment, Transportation Terminal Unit, Port Supply Activity, etc.). Advice

and planning support will be provided in the areas of explosives safety (e.g. site planning in accordance with quantity distance requirements, compatibility of ammunition and other cargo), ammunition handling procedures and techniques, preparation of hazardous cargo documents and repair/evaluation of damaged ammunition items/packages.

Reference(s): SB 742-1, paragraph 10-13a; 10-13b

D.20. QASAS monitor pier and ship operations.

Reference(s): SB 742-1, paragraph 10-13c

D.21. QASAS assure water port operating locations, to include supporting marshalling areas, explosive weight limits not exceeded and that pier and shipboard personnel observe common precautions for personnel handling or operating in the vicinity of ammunition and explosives; and conduct appropriate coordination with U.S. Coast Guard elements is essential for effective implementation of guidance. (Critical if no process in place; lack of monitoring)

Reference(s): SB 742-1, paragraph 10-13c

#### E - AMMUNITION SURVEILLANCE SOPs

E.1. Written standards for each A&E operation in place. Each SOP reviewed and approved by the performing organization.

**Reference(s)**: AR 385-10 paragraph 18-5a, DA Pam 385-10, chapter 9; DA Pam 385-64 paragraph 2-4, SB 742-1 paragraph 10-1c.

E.2. A documented risk assessment/hazard analysis included as part of the SOP. (Critical if Hazard Analysis not completed/staffed)

Reference(s): DA Pam 385-10 paragraph 9-6

E.3. Procedures in place (in lieu of SOPs) for non- explosives handling operations. As a minimum, procedures reviewed biennially by the QASAS in charge to ensure compliance with safety, operational, and quality requirements.

Reference(s): SB 742-1 paragraph 10-1c

#### F - TECHNICAL ASSISTANCE

#### AMMUNITION OPERATIONAL AND BASIC LOAD INSPECTIONS (BLI)

F.1. Inspections performed on stocks of munitions (to include ceremonial, security/operational and contingency stocks) maintained by military units to ensure the ammunition is serviceable and maintained IAW regulatory requirements. Every 12 to 15 months all stocks issued to the soldiers, excluding training ammunition issued for immediate use, are to be inspected under the program.

Reference(s): SB 742-1 chapter 8, AIN 030-14

F.2. Ammunition surveillance support (BLI and technical support) in CONUS

implemented by scheduling support on a periodic basis as established in a letter of agreement between the command providing QASAS support and the recipient activity.

Reference(s): AR 702-12, SB 742-1 Chapter 8

#### AR 702-12, QASAS AREA SUPPORT TO OFF-POST CUSTOMERS

F.3. QASAS will provide military munitions surveillance support to ACOMs, SCCs, DRUs and Installation Management Command publications during peacetime and mobilization. Support visits occur at intervals not to exceed 12-15 months or upon request of the supported installation.

**Reference(s)**: AR 702-12 Paragraph 3-1(a), Table 3-1; SB 742-1, AIN 089-13, Memorandum, ARNG-ILS, 14 Mar 14, subject: Memorandum of Instruction (MOI) - Army National Guard (ARNG) Logistics Division Quality Assurance Specialists, Ammunition Surveillance (QASAS).

F.3.1. Support agreements will document specific support requirements, including funding for travel and per diem expenses of the support provider.

#### SECTION III - EXPLOSIVES SAFETY

#### A - EXPLOSIVES SAFETY MANAGEMENT PROGRAM (ESMP)

A.1. Commanders of installations and activities with an ammunition or explosives mission established an ESMP. (Critical if no approved, signed and distributed ESMP)

Reference(s): AR 385-10 1-4.al, DA Pam 385-64 paragraph 1-5

- A.1.1. Prescribe requirements, responsibilities, and procedures for complying with AR 385-10, DA Pam 385-30, DA Pam 385-64, and DA Pam 385-65 and specifically address organization and staffing, site planning, facilities conformance, emergency response, tenants, master planning, ranges, contractors, accident prevention program, facility maintenance, demilitarization/destruction, risk management, explosives safety (ES) issuances, records management, inspections/evaluations/audits, and training.
- A.1.2. Identify the safety responsibilities of all organizations (including tenants covered by a Memorandum of Agreement (MOA)) with A&E missions and functions and detail the requirement for creating an MOA or policy that outlines the ESMP requirements and responsibilities of both the garrison or installation commander and tenants.
- A.1.3. Define safety office direct access to commander, lines of communication and reporting between the safety office and other organizations with an explosives mission.
- A.1.4. Prescribe responsibilities and procedures for knowledgeable and qualified personnel to develop, coordinate, review, and approve site plans, safety submissions, and facility designs.
- A.1.5. Prescribe responsibilities, requirements, and procedures that ensure qualified personnel develop, coordinate, review, and approve ES deviation requests as delineated in DA Pam 385–30 and provide the commander with essential risk data regarding the deficient situation.
- A.1.6. Charter and prescribe responsibilities, composition and procedures for local ES council.
- A.1.7. Prescribe processes for operational continuity (e.g. SOPs and routine facility maintenance).
- A.1.8. Prescribe responsibilities, requirements, and procedures for conducting audits/surveys to assess ESMP compliance with AR 385-10 and to assess

- compliance of A&E activities with DA Pam 385–64, including tracking and follow-up of required corrective actions.
- A.1.9. Prescribe responsibilities, requirements and procedures for the investigation, reporting, and analysis of A&E mishaps.
- A.2. ESMPs prescribe requirements, responsibilities, and procedures for complying with regulatory requirements.

**Reference(s)**: AR 385-10, DA Pam 385–30, DA Pam 385-64 paragraph 1-5, DA Pam 385–65.

- A.2.1. Appoint an occupational safety and health manager IAW AR 385–10 who is qualified under Office of Personnel Management standards as the point of contact for all aspects of the ESMP IAW DA Pam 385-64 paragraph 1-5b(1).
- A.2.2. Ensure operating, training and construction plans and budgets provide adequate resources to comply with ESMP requirements and to mitigate to the extent possible any ES hazards IAW AR 385–10.
- A.2.3. Ensure procedures developed and in place for ensuring personnel responsible for managing A&E keep current information on the type and location of A&E storage and provide this information to safety and firefighting personnel.
- A.2.4. Ensure adequate communications in place between safety, firefighting, security, emergency response, ammunition surveillance and storage personnel.
- A.2.5. Ensure procedures developed and in place for maintenance of current maps, showing all explosives locations with fire and chemical hazard symbols, and current facility response cards and notebooks for A&E storage by fire station communication centers.
- A.2.6. Ensure A&E stored only in approved locations (e.g. approved site plans, deviations and arms rooms) and quantities do not exceed amounts authorized on the license IAW AR 385–10, paragraph 5-7(c).
- A.2.7. Maintain cognizance of the posture of the ESMP and all ES deviations.
- A.2.8. Senior command or designee has developed and maintains a comprehensive listing of all existing explosives facilities in compliance with AR 385-10, paragraph 5-6f.
- A.3. Safety Directors of organizations with an A&E mission comply with requirements detailed in applicable regulations

## Reference(s): AR 385-10 paragraph 5-4b and DA Pam 385-64 paragraph 1-6b.

- A.3.1. Establish, manage, and direct the organization's ESMP according to the requirements of this regulation and DA Pam 385–30, DA Pam 385–64, DA Pam 385–65, and other policies and standards the command deems necessary.
- A.3.2. Serve as the primary Point of Contact (POC) for all ESMP-related actions (e.g. explosives licenses, explosives safety site plans, safety submissions, explosives safety deviation and risk acceptance document (DARAD), existing waivers and exemptions, and Secretarial Certification.
- A.3.3. Keep leadership and staff informed of the organization's ESMP posture and A&E safety issues.
- A.3.4. Ensure that explosives safety deviations are accurate and kept current. When the organization's leadership transitions, ensure that the incoming leadership is informed of and renews explosives safety deviations.
- A.3.5. Ensure A&E mishaps are properly reported, investigated and analyzed.
- A.3.6. Ensure that explosives safety training requirements properly identified, resourced, and complied with, and that individuals' completed training is documented.
- A.3.7. Conduct periodic evaluations to ensure the effectiveness of the organization's ESMP.
- A.3.8. Actively participate in the garrison/installation master planning process and annually review the installation master plan to ensure construction is not planned inside explosives safety quantity distance (ESQD) arcs. Ensure ES site plans, submissions and explosives licenses updated and approved at the appropriate level and reviewed annually to prevent encroachment or other explosives safety violations.
- A.3.9. Review the installation master plan and quantity-distance (QD) compliance for planned facilities on existing A&E sites both prior to and after construction.
- A.3.10. Review policies, procedures and directives for compliance with ES requirements.
- A.3.11. Review ES deviations for completeness/accuracy prior to forwarding for approval, maintain a list of approved deviations and advise incoming commanders of such and plans for correction of such situations.

- A.3.12. Annually review (and document the review) the installation's explosives location map (installation master map) to monitor encroachment within ESQD and ensure required ES site plans, submissions and explosives licenses are accomplished.
- A.3.13. Monitor selected A&E operations to ensure all participants understand and comply with applicable ES standards and to evaluate integration of risk management.
- A.3.14. Investigate and report A&E accidents, incidents and mishaps and document and disseminate ES lessons learned.
- A.3.15. Brief command and staff as necessary to keep leadership informed of ES requirements and issues and the status of the ESMP.
- A.4. Commands with operational ranges established a range safety program.

  Reference(s): AR 385–63, DA Pam 385–63 IAW DA Pam 385-64, paragraph 1-12
- A.5. SOH professionals will be trained and competent in A&E safety and explosives safety management appropriate for their explosives safety responsibilities.
  - A.5.1. Safety professionals in job series 0018 and 0803 have completed Defense Ammunition Center course AMMO–107 (Introduction to Explosives Safety Management for Safety Professionals) and prerequisite courses (AMMO–45, Introduction to Ammunition; AMMO-63, U.S. Army Explosives Safety Familiarization; and AMMO-78, Ammunition Publications). (Critical if training has not been completed)
  - A.5.2. Safety professionals in positions with explosives safety roles and responsibilities have completed training in advanced explosives safety. safety professionals with explosives safety roles and responsibilities in industrial, RDT&E, or munitions response missions and functions have completed training designed to provide requisite knowledge, skills, and abilities in these areas. (Critical if immediate supervisors has not established a designated timeline for the completion of courses)

Reference(s): AR 385–10, paragraph 5-10

A.6. The ESMP addresses the development and approval of SOPs.

Reference(s): DA PAM 385-64 para 1-5d

A.7. The Commander has requested an ESAV to evaluate the effectiveness of a command, installation, or activity's ESMP and compliance with regulatory requirements, identify shortcomings, and provide assistance with ESMP improvements. (Critical if installation has repeat findings of a critical nature)

**Reference(s)**: AR 385–10, para 5-9

- A.8. Explosives safety inspections are conducted more frequently than annually for all areas where AE-related activities routinely occur.
  - A.8.1. A list of such areas, and records of inspections, are maintained.
  - A.8.2. Results of inspections are briefed to the Commander and appropriate staff elements.

**Reference(s)**: AR 385–10 para 17-6b and DA Pamphlet 385-64 para 1-6b(5)

- A.9. Explosives safety posture reviews. (Critical if not conducted at least annually)
- A.9.1. Are conducted during new commander orientation (within 30 days) and periodically thereafter as specified in the ESMP.
- A.9.2. Present the status of explosives safety, raise A&E safety issues for command visibility or assistance in resolution, and provide results of recent audits/inspections/reviews.

Reference(s): AR 385–10 para 5-4

### B - EXPLOSIVES SAFETY SITE PLANS, EXPLOSIVES LICENSES, AND A&E MAPS

B.1. ES site plans (ESSPs) requirements, preparation and submission IAW regulatory requirements. (*Critical if site plans not developed, staffed and approved for storage of A&E*)

**Reference(s)**: AR 385-10 paragraph 5-6, DA Pam 385-64 chapter 4, DA Pam 385-65

B.2. Approved ESSPs, including the approval correspondence from Department of Defense Explosives Safety Board (DDESB) and United States Army Technical Center for Explosives Safety (USATCES) maintained by the installation safety office and using organization.

Reference(s): DA Pam 385-65 paragraph 2-17

B.3. Explosives license(s) comply with requirements for submission and preparation. (Critical if explosives license not present or if the limits exceed DDESB approved ESSP)

Reference(s): AR 385-10 paragraph 5-7, DA Pam 385-64, chapter 5

B.4. Installation/Garrison Explosives Storage License Program developed and

managed by the Installation Commander's designated Safety Office.

Reference(s): DA Pam 385-64 paragraph 5-2.b

B.5. Explosives licenses reviewed and validated at 12 month intervals for compliance and encroachment issues.

**Reference(s)**: DA Pam 385-65 paragraph 2-17, DA Pam 385-64 paragraph 5-1 and 5-2.

- B.5.1. The installation safety office or commander's designated ES representative will validate accuracy of the ESSPs against current inventories and mission as part of the explosives license reviews.
- B.5.2. Explosives license reviews will include an on-site inspection of the area by a competent individual.
- B.5.3. Documentation of the reviews will be maintained at the garrison safety office.
- B.6. Installation/Garrisons maintains map showing all locations of A&E to include Amnesty boxes and explosives truck routes.

Reference(s): DA Pam 385-64, paragraph 1-11.

- B.6.1. These maps shall be developed jointly by garrison or installation facility engineering or public works, plans and operations, safety, and logistics elements. The garrison or installation Real Property Utilization Board will use this map when proposing new uses or changes in use of garrison or installation real estate.
- B.6.2. The garrison or installation explosives location map will include: A&E hazard class and division and the NEW authorized at each site; A&E safety 'clear zones' required around each location based on ESQD criteria; primary and alternate routes for transport of A&E through the installation; locations, outside of designated impact areas, authorized for the conduct of A&E operations to include on- or offloading, and combat aviation loading; airfield locations designated for jettisoning or addressing hung A&E and gun-clearing operations; tracked vehicles upload and download areas; A&E support facilities (e.g., AHAs); locations of real property and facilities known or suspected to contain munitions and explosives of concern (MEC), MPPEH, and areas where a munitions response (cleanup) have been completed, but residual hazards are known or suspected to be present; date the map was last validated.
- B.7. Explosives licenses and maps of the explosives location and surrounding area available at both the using unit safety office and the garrison safety office. Arms room licenses posted in the arms room. Copies of explosives licenses maintained at the A&E operations controlling office.

# Reference(s): DA Pam 385-64 paragraphs 5-2 e-g

- B.8. The designated explosives safety point of contact:
  - B.8.1. Participates in the Real Property Management Planning process.
  - B.8.2. Reviews the master plan annually to ensure no construction is planned with ESQD arcs.

### **C - AMMUNITION & EXPLOSIVES OPERATIONS**

C.1. Personnel use required personal protective equipment (PPE). (Critical if the PPE identified in the applicable SOP is not in use)

Reference(s): AR 385-10 paragraph 18-11

C.2. Licensed, trained personnel operate machinery, motor vehicles and MHE. **Reference(s)**: AR 385-10 paragraph 18-7, DA Pam 385-64 paragraph 2-17.a.(2)

- C.2.1. Operators will inspect MHE prior to start of operations to ensure current certification and that it meets operational requirements IAW AR 385-10 paragraph 8-13b and DA Pam 385-64 paragraph 2-17.a.(2).
- C.3. Warning signage of UXO hazard posted around the installation to warn/prohibit entry by unauthorized persons and to alert authorized personnel entering a hazard area. (Critical if signs not posted at UXO sites)

Reference(s): DA Pam 385-63 paragraphs 2-1b, 2-2b, 2-2c, and 2-2d

C.4. Training aid/static display marked as inert, serial numbered and annual serial number inventory conducted.

Reference(s): DA Pam 385-64 paragraphs 2-9 and 3-5

C.5. Use of "Z" storage for mixed compatibility grouping approval in writing at a level consistent with the risk acceptance authority criteria.

Reference(s): DA Pam 385-30 table 4-2, DA Pam 385-64 table 7-2 note 1

C.6. Explosives and personnel limits posted as required.

Reference(s): DA Pam 385-64 paragraph 2-5a

C.7. Ammunition blocked and braced or secured with suitable tie-down straps to prevent movement IAW DA Pam 385-64, paragraph 20-10.c. (Critical if A&E not secured with proper tie downs and/or blocking and bracing to prevent movement during shipment)

Reference(s): DA Pam 385-64 paragraph 20-10c

C.8. A&E storage, handling, and operating facilities and areas maintained free of

debris and rubbish, particularly the accumulation of oily rags or other material subject to spontaneous ignition.

Reference(s): DA Pam 385-64 paragraph 2-7

C.9. All safe haven locations are properly sited and licensed.

Reference(s): DA Pamphlet 385-64 para 4-1 and 5-1

C.10. Storage of non-DoD ammunition and explosives is in compliance with Army requirements.

Reference(s): DA Pamphlet 385-64 chap 21

- C.11. For contracted A&E activities:
  - C.11.1. The ESMP defines responsibilities and procedures for ensuring explosives safety is appropriately embedded in contracts.
  - C.11.2. Explosives safety personnel have completed contract explosives safety training per guidance from the Army Safety Office.
  - C.11.2. The requiring activity, Contracting Officer, and safety personnel ensure that the risks of the contracted activities are assessed and appropriate clauses and safety requirements are included in contracts.

#### D - ELECTRICAL EXPLOSIVES SAFETY

D.1. Hazardous locations classified depending on the properties of the flammable vapors, liquids or gases, or combustible dusts or fibers, which may be present and the likelihood that a flammable or combustible concentration or quantity present.

Reference(s): DA Pam 385-64 paragraph 17-2

D.2. Each service line will be run underground from a point at least 50 feet away from the building.

Reference(s): DA Pam 385-64 paragraph 17-5

D.3. Controls for static electricity meet regulatory requirements. (Critical if no static ground system in place specifically where any electrically fired or initiated A&E will be handled)

**Reference(s)**: DA Pam 385-64 paragraphs 17-10 – 17-12

D.4. Requirements for explosives facility grounding meets delineated criteria. (Critical if no Earth electrode or grounding system in place and tested for A&E facilities)

Reference(s): DA Pam 385-64 paragraphs 17-13 and 17-14

D.5. Lightning protection system (LPS), bonding, grounding, and surge protection requirements in compliance delineated criteria.

Reference(s): DA Pam 385-64 paragraphs 17-16 and 17-26

D.6. LPS inspection and test reports and/or records maintained in the garrison or installation safety office unless an alternate office is specifically designated by the garrison or installation commander. Records of LPS tests and inspections kept on file for the last six inspection cycles; reviewed for deficiencies and indicated repairs must be made.

Reference(s): DA Pam 385-64 paragraphs 17-27 and 17-29

D.7. Hazards of Electromagnetic Radiation to Ordnance (HERO) plans and procedures comply with delineated criteria. (Critical if no documented procedures in place to limit the use of handheld communications equipment in A&E facilities)

Reference(s): DA Pam 385-64 paragraph 17-15

### **E-FIRE PREVENTION, PROTECTION, AND SUPPRESSION**

E.1. Garrison/installation involved in explosives operations develop pre-fire plans. Plans will cover all explosives areas and possible exposures of A&E to fire, will specify responsible individuals and alternates, their organizations and training, and include a description of the emergency function of each department or outside agency. *(Critical if coordinated pre-fire plans have not been developed)* 

**Reference(s)**: AR 420–1 paragraph 25-16b, DA Pam 385-64 paragraph 6-1c and 6-2

E.2. Army fire station central communications center have an area map showing all explosives areas or locations. (Locations with less than 1,000 rounds of hazard division1.4 small arms ammunition (.50 caliber or less) are exempt. (Critical if map(s) are not posted at fire station central communications center)

Reference(s): DA Pam 385-64 paragraph 6-1d

E.3. Explosives operations notify the fire department with any change of fire or chemical hazard symbols for A&E facilities, reference DA Pam 385-64, paragraph 6-1e. (Critical if a system has not been established to provide updates)

Reference(s): DA Pam 385-64 paragraph 6-1e

E.4. Restrictions on flammable sources and smoking restrictions documented.

Reference(s): DA Pam 385-64, paragraph 6-3.

E.5. Operating personnel and firefighting forces involved with explosives trained in precautions to be taken and how to fight fires, including the application and meaning of each type fire hazard symbol, reporting fires, sounding alarms, area evacuations, and type and use of appropriate firefighting equipment. Personnel with responsibilities for using fire extinguishers will receive training, upon initial assignment and at least

annually thereafter, on general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.

Reference(s): DA Pam 385-64 paragraph 6-4 and 6-10b

E.6. Fire drills will be held within A&E areas at intervals of six months or less to train firefighting forces and ensure other personnel involved understand individual responsibilities, evaluate fire alarm systems and firefighting equipment.

(Critical if fire drills have not been conducted, with involvement of all required activities)

Reference(s): DA Pam 385-64 paragraph 6-5

E.7. Posting of fire and chemical hazard symbols with visibility from all approach roads.

Reference(s): DA Pam 385-64 paragraph 6-14

E.8. Deluge systems present for explosives operations and locations where a process fire hazard exists.

Reference(s): DA Pam 385-64 paragraph 6-19

### F - RISK MANAGEMENT

## UNEXPLODED ORDNANCE (UXO) SAFETY EDUCATION

F.1. Areas known or suspected to contain unexploded ordnance (UXO) present on Army installations provide UXO safety education training or information to people living on the installation or FUDS or that work on or use the property. Such training will be based on and incorporate the Army's 3Rs (Recognize, Retreat, Report) message.

Reference(s): DA Pam 385-64 paragraph 2-16

F.2. Safety education material and will be offered to schools on or in close proximity to the installation or FUDS on a periodic basis.

Reference(s): DA Pam 385-64 paragraph 2-16

### **DEVIATIONS**

F.3. When deviating from ES policy and standards, the proper authority must weigh the added risk to personnel and property against the strategic and other compelling reasons that necessitate such deviations.

**Reference(s)**: AR 385-10, paragraph 5-5 and prepare a request for deviation, reference DA Pam 385–30, paragraph 1-7b

F.3.1. When an existing facility violates the provisions of DA Pam 385–64 or operations violate the provisions of DA Pam 385–64, a deviation will be executed IAW DA Pamphlet 385-30, documented on DA Form 7632, and the risk accepted at the appropriate level of command. (Critical if deviation fails to meet these requirements)

- F.3.2.Copies of waivers, exemptions, Secretarial Certifications and reviews involving A&E or chemical agent provided to the organization's ACOM, ASCC, and/or DRU safety office and USATCES for data collection and analysis. G.3.3 Risks are accepted only by the commander with the resources and/or authority necessary to control, eliminate, or correct the hazard in appropriate timeframe.
- F.3.4. Coordination will be made with all units exposed to the hazards.
- F.3.5. When unrelated personnel, facilities, or equipment are exposed to a hazard, the appropriate authority in the exposed organization will acknowledge the hazard and accept the risk to their personnel, facilities, or equipment.
- F.3.6. If waivers are reissued they require approval at the next higher approval authority.

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AR 385-63	Range Safety, 30 January 2012	
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10 USC, Section	10 USC, Section 2577, Disposal of Recyclable Materials
2577	http://www.gpo.gov/fdsys/pkg/USCODE-2011-title10/pdf/USCODE-2011-title10-
	subtitleA-partIV-chap153-sec2577.pdf
32 CFR, Part 172	32 CFR, Part 172, Disposition of Proceeds from DOD Sales of Surplus Personal
	Property
	http://www.gpo.gov/fdsys/pkg/CFR-2012-title32-vol1/pdf/CFR-2012-title32-vol1-
	part172.pdf
40 CFR	Military Munitions Rule (MR) Environmental Protection Agency, [EPA 530-Z-95-
	013; FRL-5686-4], Vol. 62 No. 29
	http://www.epa.gov/epawaste/laws-regs/state/revision/frs/fr156.pdf
42 USC Section	The Public Health and Welfare
6901	http://www.gpo.gov/fdsys/search/pagedetails.action?browsePath=Title+42&granul
10.050.0	eld=&packageId=USCODE-2009-title42&collapse=true&fromBrowse=true
49 CFR, Part 172,	49 CFR, Part 172, Subpart H Training
Subpart H	http://www.gpo.gov/fdsys/pkg/CFR-2012-title49-vol2/pdf/CFR-2012-title49-vol2-
Fadarel Facilities	part172-subpartH.pdf
Federal Facilities	Resource Conservation and Recovery Act (RCRA) and Federal Facilities
Compliance Act	http://www2.epa.gov/enforcement/resource-conservation-and-recovery-act-rcra-
(FFCA) of 1992	and-federal-facilities  Electromagnetic Environmental Effects Requirements for Systems
MIL STD 464C	Electromagnetic Environmental Effects Requirements for Systems
MIL-HNBK-240A	https://assist.dla.mil Hazards of Electromagnetic Radiation to Ordnance Test Guide
WILTHINDIX-24UA	https://assist.dla.mil
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MIL-STD 129R	Military Marking for Shipment and Storage
	https://assist.dla.mil
RCRA	Resource Conservation and Recovery Act (RCRA) Compliance Assistance
	http://www.epa.gov/oecaerth/assistance/bystatute/rcra/index.html
WPN	Range Scrap (Firing point) Study, Waste Profile Notices (WPN)
	https://www.denix.osd.mil/mmrp/upload/wpnjun05.pdf