

## **APPENDIX B**

### **Course Descriptions for Phase I Intern Training**

#### **Conventional Ammunition Orientation**

##### **Ammo-1**

**Description:** This course provides students with technical information on various types of conventional munitions. Included are topics covering the Federal supply and ammunition lot numbering systems, identification of ammunition items, DoD publications, and ammunition drawings.

**Length:** 9 Weeks

**Course Topics:**

1. Identification of Ammunition
2. Conventional Ammunition
3. DOD Publications
4. Ammunition Drawings

#### **Ammunition Demilitarization**

##### **Ammo-4**

**Description:** This course provides training for ammunition personnel in the various methods, procedures, and techniques of performing ammunition demilitarization. Emphasis is placed on procedures required for open burning and detonation. Students are introduced to the emerging technologies for resource recovery and recycling. This course includes a live explosives exercise in which students will conduct set-up and detonation using both electric and non-electric methods on the demolition range. Training is also provided on the changing impact of environmental requirements and decontamination methods.

**Length:** 2 Weeks, 3 Days

**Course Topics:**

1. Operational Safety
2. Environmental Requirements
3. Demilitarization Technology
4. Demolition Materials
5. Review of Range Standing Operating Procedures
6. Demolition Range Exercise
7. Certification of Disposal Operations (CODO)

## **Ammunition Facilities**

### **Ammo-5**

**Description:** This course provides students with a familiarization of the various types of ammunition facilities, structures, and ports. Students will learn why these facilities are used and become familiar with regulations governing the use of ammunition facilities. They will also be introduced to the terminology associated with ammunition facilities.

**Length:** 2 Days

**Course Topics:**

1. Ammunition Facilities and Structures
2. Ammunition Port Facilities

## **Ammunition Quality Assurance**

### **Ammo-10**

**Description:** This course provides students with a fundamental understanding of the quality assurance practices associated with conventional munitions. Students will learn how ammunition is evaluated and classified throughout its lifecycle and how this information is recorded and used to effectively manage the ammunition stockpile.

**Length:** 3 Days

**Course Topics:**

1. Introduction to Quality Assurance
2. Condition Codes
3. Ammunition Data Cards
4. Suspensions/Restrictions
5. DSR Cards
6. Defect Codes

## **Ammunition Storage**

### **Ammo-12**

**Description:** This course provides basic information and training in the use and application of governing regulations and procedures for the safety and security of ammunition and explosives in storage. Introduced will be a broad introductory overview of wholesale storage operations mainly at the depot level. Training includes storage facilities, physical security, safety, inventory and accountability, drawings and planographs, and administrative documentation applications.

This course meets the requirements of U.S. Army Materiel Command Regulation (AMC-R) 350-4 Training and Certification Program for Personnel Working in Ammunition Operations and AMC-R 385-100 Safety Manual and Department of the Army Pamphlet 385-64 Ammunition and Explosives Safety Standards.

**Length:** 5 Days

**Course Topics:**

1. Facilities
2. Physical Security
3. Safety
4. Inventory and Accountability
5. Interpret Drawings, Planographs, and Gridding
6. Administrative Documentation

**Ammunition Surveillance**

**Ammo-14**

**Description:** This course provides an introduction to basic procedures and actions associated with inspecting a range of ammunition items to determine serviceability, to include applicable computer-generated forms and reports. Students will learn the procedures for inspecting ammunition facilities, monitoring various ammunition operations, and determine the equipment, tools, and reference materials needed to perform ammunition inspections and tests. Students will also learn about the administrative methods used to clear ammunition lots for shipment, suspension and restriction controls, and inspection procedures both outbound and incoming ammunition shipments.

**Length:** 7 Weeks

**Course Topics:**

1. Introduction to Surveillance
2. Ammunition Inspection Requirements
3. Ammunition Test Programs
4. Surveillance of Maintenance Operations
5. Missile Inspection Requirements
6. Unit Basic Load (UBL) Inspection
7. Safety and Logistics Responsibilities
8. Propellant Inspection and Test Sample Preparation
9. Shipping Desk Procedures

**Electrical Explosives Safety for Army Facilities**

**Ammo-28**

**Description:** This course provides basic regulatory guidance and familiarization with methods and procedures to correctly inspect, test, document, and manage electrical safety aspects that apply to explosives storage and operating facilities. An overview of static electricity generation and control, electromagnetic radiation hazards to ordnance and personnel, and electrical equipment requirements for hazardous (classified) locations. Content includes lightning generation and its effect in regard to personnel, equipment, weapons systems, and structures. Identification of Lightning Protection System (LPS) design criteria and requirements, computing zone of protection, requirements for Bonding and LPS component specification. System inspection and testing methodology, test

equipment operation, and effective record keeping is stressed. Both Army guidance and NFPA Code standards are utilized.

**Length:** 3.5 Days

**Course Topics:**

1. Orientation and Regulatory Guidance
2. Electromagnetic Radiation, Static Electricity, Electrical Safety
3. Lightning Statistics, Effects, and Systems
4. Strike Termination Devices and Lightning Conductors
5. Bonding and Earth Electrode System
6. Inspection, Testing, and Records and Plans
7. Test Meter Exercise plus LP Inspection and Test Field Trip
8. Examination, Closeout, and Critique

**Environmental Considerations for Ammunition Personnel  
Ammo-31**

**Description:** Ammo-31 is based on environmental laws and regulations that have the most influence over ammunition and explosive operations. The purpose of this course is to familiarize the learner with environmental considerations that must be taken into account during all phases of ammunition and explosive operations.

**Course Topics:**

1. Purpose
2. Applicability
3. Environmental Laws & Regulations
4. Hazardous Waste Identification
5. Hazard Communication & Training
6. Spill Prevention, Response & Reporting
7. Hazardous Waste Management

**Intermodal Dry Cargo Container/(CSC) Reinspection  
Ammo-43**

**Description:** This course provides information required to reinspect intermodal dry cargo containers IAW the CSC standards. Course content includes overview of various CSC container types, container structural and non-structural components, and a detailed analysis of reinspection criteria required by CSC, U.S. Public Law, and Joint Service Regulations. Reporting requirements and reinspection decal placement are also discussed. Personnel successfully completing this course may be certified as Department of Defense (DOD) CSC Inspectors as required by DoD 4500.9-R, Volume VI. This course must be successfully completed every four years to retain certification status.

**Course Topics:**

1. Overview of Containerization
2. Structure of Containers
3. Inspection Criteria

## **Risk Management and Preparation of SOPs for Ammunition and Explosive Operations**

### **Ammo-54**

**Description:** This course provides training to prepare and review ammunition and explosives SOPs in accordance with Federal, Department of Defense, Department of the Army, and U.S. Army Materiel Command (AMC) regulatory requirements to personnel engaged in ammunition and explosives operations. This course has incorporated a broad overview of hazard analysis and risk management designated to familiarize students, assigned to various munitions-related disciplines. Students learn procedures to identify hazards, manage risks, and to prepare and review SOPs through a series of individual and group written exercises and presentations.

**Length:** 1 Week, 3 Days

#### **Course Topics:**

1. Regulatory Guidance - SOP Requirements
2. Flow Charting Procedures
3. Risk Management and Hazard Analysis
4. SOP Writing and Review Workshop

## **Quality Assurance for Toxic Chemical Munitions**

### **Ammo-55**

**Description:** This course provides material covering surveillance inspection intervals, sample sizes/classification of defects for all toxic chemical inspection, and related reporting requirements. It also provides materials covering leak test requirements, frequencies, containerization of leakers, and the leaker reporting process. Students will don protective equipment and perform a storage monitoring inspection, to include completion of required inspection reports.

**Length:** 3 Days

## **Technical Chemical Surety Material (TCSM)**

### **Ammo-61**

**Description:** This course provides descriptions of toxic chemical agents, their effects, symptoms from exposure, and self-aid/buddy aid treatments of effects. Types of munitions, containers, protective clothing, and detection equipment, along with detection capabilities and decontamination procedures are discussed. Chemical Accident/Incident Response and Assistance (CAIRA), to include types of emergencies, agent hazard prediction capabilities, and effects of weather and terrain are examined. Current and proposed methods of disposal/demilitarization for surety agents are also discussed.

**Length:** 1 Week, 3 Days

## **Technical Transportation of Hazardous Materials**

### **Ammo-62**

**Description:** This course provides personnel from all services detailed technical information pertaining to all phases of transportation for hazardous materials, and satisfies the mandatory training for persons who certify hazardous materials and conduct function-specific training for subordinate personnel as specified in the Defense Transportation Regulation (DOD 4500.9-R). Course content regulations governing the transportation of hazardous materials by all modes (i.e., land, vessel, and commercial/military air). International regulations covered include the International Maritime Dangerous Goods Code and the International Commercial Air Transport Associations Dangerous Goods Regulations. United States regulations covered include the Department of Transportation (DOT) 49 Code of Federal Regulations (CFR) and U.S. military regulations. Course materials include emphasis on shipping papers, marking, labeling, placarding, packaging, compatibility, and emergency response information.

**Length:** 2 Weeks

## **U.S. Army Explosives Safety**

### **Ammo-63**

**Description:** The Ammo-63 course consists of a final comprehensive exam that covers content from four courses. These courses provide in-depth training in ammunition explosives safety and must be completed prior to registering for the Ammo-63 exam. Upon successful completion of these four courses and the Ammo-63 exam, a certificate will be issued for U.S. Army Explosives Safety. The descriptions of the four courses are as follows:

**Ammo-77-CPE: Ammo-77-CPE (Characteristics of Propellant and Explosives)** introduces the basic terminology associated with explosives, propellants, and ammunition items. This course also covers the major categories and characteristics of high and low explosives and chemical ammunition fillers.

**Ammo-81-HC: Ammo-81-HC (Hazard Classification)** provides an introduction to the system of hazard classes and divisions used to categorize hazardous materials, focusing on ammunition and explosives. It also explains how this system is used to enhance safety through the concept of storage compatibility.

**Ammo-81-IQD: Ammo-81-IQD (Introduction to Quantity Distance)** covers the basic principles of quantity distance, the different categories of QD protection, the general terms associated with QD, and the regulatory oversight for QD. Students are also provided with simple scenarios to determine QD compliance.

**Ammo-81-OPS: Ammo-81-OPS (Operational Safety)** covers the basic concepts of operational safety with regards to ammunition and explosives. This course provides an overview of fire prevention measures, maintenance and demilitarization, facilities design

requirements, ammunition storage principles, standing operating procedures, and hazard analysis.

**Course Topics:**

1. Ammo-77-CPE (Characteristics of Propellant and Explosives)
2. Ammo-81-OPS (Operational Safety)
3. Ammo-81-IQD (Introduction to Quantity Distance)
4. Ammo-81-HC (Hazard Classification)
5. Ammo-63 Final Exam

**Radioactive Material Handling Safety**  
**AMMO 66**

**Description:** This course is designed as a training and reference resource to support U.S. Army and Marine Corps personnel designated as Radiation Safety Officers. It includes introductory level knowledge related to basic atomic physics and radiation. The course covers methods of detection and measurement, radiation dosimetry, and safety measures for limiting exposure to ionizing radiation. A section is included on regulatory requirements, accidents and incidents, and waste disposal. Technical Bulletin 43-0116 is also referenced in identifying military commodities of interest.

**Length:** Self-paced

**Tools and Equipment**  
**Ammo-71**

**Description:** This course provides an explanation to the Ammunition Peculiar Equipment (APE) Program and information about the different types of APE and their uses. Students will become familiar with hand tools, gages, and precision measuring devices used in ammunition operations such as inspection and maintenance. This course will also introduce calibration requirements for test, measurements, and diagnostic equipment (TMDE).

**Length:** 3 Days

**Ammunition Physical Security**  
**Ammo-75**

**Description:** This course provides information on the requirements of the Army's physical security program as it pertains to the storage of ammunition and explosives. Students will utilize AR 190-11, Physical Security of Arms, Ammunition, and Explosives and the FEDLOG to determine Controlled Inventory Item Codes (CIICs) and associated security risk categories, physical security measures used for ammunition sites, and special requirements for security risk categories I and II.

**Length:** 2 Days

## **U.S. Army Explosives Safety Quantity Distance and Site Planning Ammo-82**

**Description:** This course provides in-depth training in ammunition explosives safety quantity distance concepts and practices. It includes instruction in the interpretation and use of explosives safety quantity distance tables, the application and use of explosives safety considerations not given in explosives safety quantity distance tables, determining safety distance measurement points, managing previously determined explosive limits, and an introduction to the documentation requirements of the site approval process.

**Length:** 1 Week, 3 Days

## **Ammunition Capstone Ammo- 85**

**Description:** This course is designed to present training that will accomplish the following: Expand the understanding of DOD Ammunition Managers and QASAS interns in the areas of ammunition operations; safety; planning, priorities of work, surveillance operations, transportation and preparation for shipping ammunition items at the Retail level. It also provides a forum for study and discussion of current ammunition management problems.

**Length:** 3 Weeks

The additional training courses taught by external agencies are also part of phase 1 Intern Training:

Computer Literacy: Eastern Oklahoma State College  
Statistical Process Control: Oklahoma State University  
Logistics Data Interpretation (DLIS): Defense Logistics Agency  
Ammunition Surveillance Information System Munitions History Program