

CHAPTER 4

TECHNICAL DATA AND CONFIGURATION MANAGEMENTA. CONCEPT OF OPERATIONS1. Authorities and Responsibilitiesa. The Military Services. The Military Services shall:

(1) Retain responsibility for overall configuration **management (CM)** and control of ammunition developed by them for its life cycle under DoD Directive 5010.19 and Army Regulation 70-37 (also designated Air Force Regulation 65-3 and NAVMATINST **4130.1A**).

(2) Retain responsibility for overall quality assurance under DoD Directive 4155.1 for **ammunition** developed by them for its life cycle.

(3) Make the final decisions on all configuration changes on items developed by them.

b. The SMCA. The **SMCA** shall participate with the Military Services in configuration control of assigned ammunition.

(1) Configuration control shall be exercised at **all** levels of the Department of Defense and at Defense/industry interfaces. It shall be based on the functional or product configuration identification **appropriate to** the management level concerned and to the stages of the Configuration Item (**CI**) life cycle. All affected activities, such as engineering, logistics, and operations should take part in evaluating proposed changes in the configuration of a **CI** throughout its life cycle.

(2) The evaluation of each proposed change should include **all** aspects of the change, including design performance, costs, scheduling, operational effectiveness, logistics, and **training**. Further, evaluation of changes shall include the relative merit of inventory and production retrofitting compared to operating and supporting more than one configuration.

2. CM Organizations. The organizations set up by each Military Service to act as focal points for CM are as follows:

- a. For Army-developed items:

U. S. Army Research, Development and Engineering Center
Engineering Support Directorate (**SMCAR-ES (R)**)
Rock Island, IL 61299-7300

- b. For Air Force-developed items:

Ogden Air Logistics **Center/MMWRS**
Hill AFB, UT 84056

- c. For Navy-developed items for NAVSEA use:

Commanding Officer
Naval Weapon Support Center
ATTN : Code 90
Crane, **IN 47522**

- d. For Navy-developed items for NAVAIR use, except pyrotechnic items:

Pacific Missile Test Center
Fleet Weapon Engineering Directorate
Point **Mugu, CA 93042**

- e. For Navy-developed pyrotechnic items for NAVAIR use:

Commanding Officer
Naval Weapons Support Center (Code 50)
Crane, **IN 47522**

f. The U.S. Army Research, Development and Engineering Center shall act as the SMCA focal point for Air Force and Navy ISEAs in matters of configuration control and to receive Air Force and Navy documentation sets needed to perform procurement and maintenance.

3. Developing Service Responsibilities for **CI**

- a. The developing Military Service shall define and maintain the CI.

b. A **CI** baseline is identified through the use of specifications, drawings, and other controlled technical documents.

c* The following are examples that are under the control of the developing Military Service:

- (1) Format of the DP is specified in section B., below.

(2) Approved maintenance and renovation requirement. Format of maintenance and renovation requirements is specified in section C., below.

(3) Standards and specifications for inspection and serviceability classification of the wholesale inventory.

(4) Gage designs.

4. Configuration Control

a. Approvals and Disapprovals. The developing Military Service is the final authority for the approval or disapproval of **ECPs**. The **SMCA**, however, may disapprove waiver or deviation requests if these actions have no cost or schedule impacts. The SMCA (**SMCAR-ES(R)**) shall send all waiver or deviation requests, including those disapproved, to the requiring and developing Military Services. In forwarding these requests, the SMCA shall furnish recommendations and rationale for approval or disapproval to the requiring and developing Military Services.

b. Impact Statements. For **ECPs**, waivers, and deviations, the SMCA (**SMCAR-ES(R)**) shall advise the requiring and developing Military Services of the impacts resulting from approval or disapproval on procurement costs and schedules, as well as the impacts on process and maintenance engineering on the wholesale inventory. The information shall include impacts on plants under SMCA management. On common use items, the other using Military Services shall provide any mandatory notations for data cards.

c. Availability of the CMP. Before transition of the procurement function for a **CI** to the SMCA, the requiring Military Service shall ensure that the CMP is prepared and available to the participants in configuration control. The plan must clearly identify those contractual and configuration management requirements essential to the minimum requirement of the Government.

d. Visibility of Proposals for Joint Usage Items. The developing Military Service shall ensure that all requiring Military Services have the opportunity to accept or reject proposals for specified **application**.

e. Reconciling Exemptions and Unique Military Service Requirements. Technical exemptions and unique Military Service requirements shall be reconciled by the requiring Military Services so that an efficient program of consolidated procurement can be achieved.

f. Contractual Implementation. The requiring Military Services shall provide the basis of "contractual implementation for all configuration management actions.

5. Configuration Status Accounting

a. The Military Services shall specify the **configuration identification** in their **MIPRs**.

b. The SMCA will not maintain a permanent TDP file. The Military Service ISEA shall provide TDPs and **procedures** with each **procurement**, maintenance, and renovation order. Microfilm aperture cards prepared according to **MIL-STD-804B** are the preferred medium.

c. The developing Military Service shall retain all authority and responsibility for configuration status and accounting.

d. The requiring Military Service shall:

(1) Specify data item requirements on the **MIPR**.

(2) Receive and retain the master ADC.

e. For joint usage items, the using Military Services shall be on **distribution** for copies of the ADC.

6. Configuration Auditing. The developing and requiring Military Services shall retain the authority to conduct required onsite configuration audits of each item or production facility for items being procured or stored for them by the **SMCA**. Joint user Military Services shall be invited to take part in configuration audits. Section D., below, tells how to plan and conduct configuration audits.

7. Configuration Management Interfaces

a. During procurement, production, and wholesale inventory management, the SMCA takes part in the configuration control responsibility, interfacing with the Navy and the Air Force on evaluating the following:

(1) Class **I** actions, including urgent **ECPs**, routine **ECPs**, critical and urgent waivers or deviations, message form **ECPs**, and VECPS during current SMCA procurement contracts.

(2) Class **II** actions, including **ECPs**, minor waivers, and deviations.

(3) Lot suspensions and restrictions.

(4) Contractor-designed gages and Government gage actions.

(5) Configuration control of joint use items, regardless of procurement activity.

b. If wholesale inventories are affected by a proposed change, the SMCA will be given sufficient information to respond on the impact of the proposed changes.

B. TECHNICAL DATA MANAGEMENT

This section explains policies, procedures, and responsibilities for preparing and using an ADL to procure or LAP conventional ammunition. It also defines the procedure for interchanging engineering DPs among DoD Agencies. The DP is all the material supplied under the ADL or DL for the purpose intended. The individual Military Service commands are responsible for developing internal procedures to accomplish these actions.

1. Technical Data Management Responsibilities

a. The developing Military Service shall:

(1) Provide the DP in the format prescribed in standards in force at the time of preparation. The top document of a DP must be traceable to and identified with the configuration identification documentation under which the item was designed, developed, produced, and accepted. Specifications, drawings, DL or ADL, as applicable, shall be the top documents for configuration items. If the top document is a specification, it shall be developed under MIL-STD-490 or a military specification prepared under DoD 4120.3-M procedures. An equivalent performance document shall be the top document if none of the above procedures are used.

(2) Provide the DP as requested by the requiring or procuring Military Service.

(3) Develop the DP completely enough so that the item can be procured or renovated by the method specified.

(4) Perform all inspections and certifications required by MIL-D-5480E for nondrawing and drawing copies (reproducible) and MIL-M-98680 for microfilmed engineering documents.

b. The requiring Military Service shall, in coordination with the developing Military Service, ensure the ADL/DL and DP are provided to the procuring Military Service.

c. The procuring activity shall include the ADL/DL as an entity in solicitations, contracts, procurement work directives, and maintenance work directives.

d. All technical data shall be supplied in either reproducible form according to **MIL-D-5480E** for nondrawing and drawing copies (reproducible), on an exception basis, or **Diazotype** microfilm, Class 2, according to **MIL-M-9868D** and **MIL-STD-804B**.

e. Each DoD activity requiring data shall identify the intended use of the data.

(1) A PDP shall contain all drawings, specifications, and supplemental data needed to perform a contracting action.

(2) An RDP is for planning purposes and shall contain drawings and specifications current enough to allow accurate **planning**.

2. Technical Data Management Procedures

a. The requiring Military Service may recertify a DP or portion thereof being **used by the SMCA for** current procurement or for production of the identical item in the succeeding FY by so stating on the MIPR or **MIPR** amendment.

b. All changes to technical data on file with SMCA shall be provided according to **MIL-M-9868D**, Type II, Class 2, for microfilmed engineering documents.

c. The SMCA shall advise the requiring Military Service if the **proposed method** of procurement is not identical to the initial **ADL/DL** and DP. The suspense date for receipt of revised lists and data is negotiated between the SMCA and the requiring Military Service.

d. Although third tier military specifications, commercial specifications, and standards should be cited in listings, they need not be provided on initial release. For those specifications and standards not supplied, one of the following negotiations or an equivalent shall be **shown in the lists**:

(1) To be **obtained** from the U.S. Department of **Commerce** National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. If not available, advise the Army Research, Development and Engineering Center, Engineering Support Directorate, ATTN: **SMCAR-ES(R)**, Rock Island, IL 61299-7300.

(2) Commercial specifications and standards maybe obtained from the publisher; they are not available from Government sources.

e. Data provided to the SMCA on an exception basis as not conforming to **MIL-M-9868D** and **MIL-STD-804B** shall be confined to changes and lists dated within 60 calendar days of the arrival date specified by the requiring Military Service.

f. The requiring Military Service **shall** provide an agency list to the SMCA and include the following mandatory information.

(1) The designated agent for list and data certifications. Include the telephone extension.

(2) Mail and teletype address of the agent.

(3) Method of communication on technical data inquiries (letter, telephone, or teletype).

(4) The status accounting point of contact for all CM actions (lists, drawings, technical data, waivers, deviations, **ECPs**, and similar documents).

(5) The recertification method to be used by the procuring activity.

C. MAINTENANCE TECHNICAL REQUIREMENTS

1. The owning Military Service shall:

a. Fund the developing Military Service for preparing and forwarding technical requirements for both maintenance and preservation and packaging needs peculiar to the owning Military Service's assets.

b. Provide the DMWR as specified in **MIL-M-63012** for preservation and packaging actions to the storing Military Service when the assets are received for storage.

c. Negotiate a **DMISA** with the storing Military Service and provide **the** technical requirements for maintenance as an appendix to the approved **DMISA** (see Chapter 8).

2. The developing Military Service shall prepare and forward technical requirements for maintenance and preservation and packaging as requested and funded by the owning Military Service.

D. CONFIGURATION AUDITS

1. Policies for Performing Configuration Audits

a. A PCA may be accomplished onsite by physical examination of the **CI** or parts thereof (including disassembly) by the developing Military Service or requiring Military Service in coordination with the developing Military Service and by witnessing of the manufacturing and assembly process.

b. An FCA may be accomplished by onsite witnessing or performing PCA functional tests or examining test data by the developing or requiring Military Service.

c. The procuring Military Service, developing Military Service, and requiring Military Service must be informed of the intent to perform an onsite configuration audit by the Military Service performing the audit at least 1 week before the audit.

d. The procuring Military Service must provide access to **all** software (production procedures, QA procedures and process control data) and available hardware to the developing or requiring Military Service for examination on request.

e. Deficiencies identified during PCAS and FCAS require corrective action within 30 days or a rationale must be submitted by the procuring Military Service to the developing and requiring Military Services explaining why further delay is necessary.

f. Samples pulled by an audit team above the normal QA samples shall be considered part of the total delivered items required by the contract. Cost incurred shall be borne by the Military Service performing the audit.

2. Configuration Audit Procedures

a. The procuring Military Service shall notify the developing and requiring Military Services of intent to begin production or change in status of production at least 1 week before the intended action.

b. If a Military Service intends to conduct an onsite audit, the other Military Services shall be notified at least 1 week before arrival on the site.

c. The Military Service performing the audit may examine both software and hardware. Hardware may not be destroyed without the approval of the requiring Military Service. Any hardware destroyed more than the normal QA samples during examination shall be considered as items delivered on the contract.

d. Written audit reports shall be addressed to the procuring Military Service, with copies to the developing and requiring Military Services.

e. Corrective actions shall be approved by the developing Military Service, the requiring Military Service, and the procuring Military Service before implementation.

E. REPORTING AND INVESTIGATING NONNUCLEAR AMMUNITION MALFUNCTIONS

This section specifies uniform policies and procedures for inter-Service notification and reporting of nonnuclear ammunition malfunctions. It also requires the periodic exchange of data on the status of reclassified material. It applies to all ammunition assigned to the SMCA by DoD Directive 5160.65.

1. Objectives. The objectives of this section are to produce:

- a. Timely investigations.
- b. Determinations of malfunction causes.
- c. Prevention of similar malfunctions.
- d. Timely closeouts of malfunction reports.

2. Ammunition Malfunction Classification and Prioritizing

a. Classification. A malfunction is a failure of an ammunition item to function as expected when fired or launched, or functioning of explosive components during a nonfunctional test. Malfunctions do not include accidents or incidents resulting from negligence, malpractice, or fires. However, they do include hangfires, as well as abnormal **or** premature functioning of explosive ammunition items, warheads, missiles, and rockets under normal handling, maintenance, storage, transportation, and tactical deployment.

(1) Class A malfunctions are those that endanger life, threaten material, or both. That is, they could cause fatalities, serious injury, or destruction of or serious damage to the weapon or launcher under normal training or combat conditions.

(2) Class B malfunctions are all malfunctions other than Class A.

b. Priority Codes. These are numerical designations describing the relative urgency of malfunction investigations.

(1) Priority 1: Hazardous malfunctions resulting in or capable of causing death or injury to personnel.

(2) Priority 2: Malfunctions that prohibit the issue of ammunition by type or in short supply.

(3) Priority 3: Malfunctions resulting in weapon or **materiel** damage, but not involving deaths or injuries.

(4) Priority 4: Malfunctions that prohibit the issue of ammunition by lot or that require investigation due to reduction in the effectiveness of the ammunition.

3. Responsibilities for Malfunction Investigation and Reporting

a. Preliminary Reporting and Onsite Investigation. The Military Service experiencing the malfunction shall prepare the report and conduct the preliminary onsite investigation using internal Military

Service regulations. Copies of each malfunction report or preliminary **onsite** investigation report on common use items must be provided to each affected Military Service.

b. Detailed Investigation. The developing Military Service shall conduct the detailed investigation, including onsite investigation, as appropriate. **If the item is used in a tactical situation not experienced by the developing Military Service, the Military Service that had the malfunction will assist in the detailed investigation.**

c. Funding. The developing Military Services shall fund for investigations on items they developed.

d. Assigning Priorities. The Military Service requesting the investigation shall assign the priority code. Other using Military Services may assign higher priority codes.

e. Malfunction Samples. The Military Service possessing samples, fragments, or other material needed to support a malfunction investigation shall forward them when requested by the investigating **Military Service.**

f. Investigation Report Requirements. Copies of the final reports on malfunction investigations involving **common** use items shall be furnished to all affected Military Services. Each report shall contain a recommendation on any restriction to be placed on the use of the item or a material disposition recommendation.

g. Suspension and Release Actions. Refer to Chapter 5, section E., below, for detailed instructions on suspension and release of items.

4. Procedures for Malfunction Reporting and Investigation

a. Distributing the Initial Report. The Military Service experiencing the malfunction sends copies of the initial report to the developing and other using Military Services.

b. Requesting the Investigation. The Military Service requesting an investigation submits a formal written request to the developing Military Service, providing the priority code and all available pertinent information. The requesting Military Service provides information copies of the request to all using Military Services.

c. The Abbreviated Plan of Investigation (APOI). The developing Military Service provides an APOI to the requesting Military Service within 45 days of the request. The APOI must identify test sample requirements and include test descriptions and milestones for accomplishing the investigation.

d. Providing Test Samples. The requesting Military Service sends the required samples to the location specified by the developing Military Service. If test samples have not been received in a reasonable time, the developing Military Service notifies the requesting Military Service. All Military Services shall continually emphasize the importance of retaining all fragments and malfunctioned components for a maximum of 120 days for possible use in the detailed investigation of malfunctions.

e. Investigation Correspondence Requirements. All correspondence relating to a malfunction investigation must list the identification number of both the developing and requesting Military Services.

f. Monthly Status Reports. The developing Military Service provides monthly status reports to the requesting Military Service. The status reports must include such information as test sample receipt, test initiation or percent completion, and anticipated completion date.

g. The Final Report. The developing Military Service provides a final report to the requesting Military Service.

5. Points of Contact for Malfunction Reporting and Investigation

- a. **Commander**
U.S. Army Armament, Munitions,
and Chemical Command
ATTN: **AMSMC-QAS(R)**
Rock Island, IL 61299
- b. **Commander**
U.S. Army Armament, Munitions,
and Chemical Command
ATTN: **AMSMC-DSM-C(D)**
Dover, NJ 07801
- c. **Commander**
Naval Sea Systems Command
ATTN: SEA 642
Washington, DC 20362
- d. **Commander**
Naval Air Systems Command
ATTN: AIR 420
Washington, DC 20361
- e. **Commander**
Ogden Air Logistics Center
ATTN: **MMWR**
Hill Air Force Base, UT 84056

f. Commandant
U. S. Marine Corps
ATTN: LMG
Washington, DC 20380