

SUBJECT: Department of Defense (DoD) Shelf Life Materiel Quality Control Storage Standards

References: Refer to Enclosure 1.

1. PURPOSE.

a. This Issuance cancels DLAD 4155.37/AR 702-18/NAVSUPINST 4410.56A/AFJMAN 23-232/MCO 4450.13A (Reference (a)) and reissues this publication to update policy, responsibility, and procedures for the DoD Shelf Life of Materiel Quality Control Storage Standards (MQCSS).

b. This Issuance prescribes uniform policies, responsibilities, and guidance for the development, preparation, dissemination, maintenance, and application of MQCSS for shelf life materiel managed, owned, and used by the Military Departments, Defense Logistics Agency (DLA) (herein referred to as the "DoD Components"), General Services Administration (GSA), the Federal Aviation Administration (FAA), the U.S. Coast Guard (USCG), and the National Aeronautics and Space Administration (NASA).

c. The information contained herein provides the principles for quality assurance techniques, procedures, and criteria that must be used when conducting visual inspection, testing, and/or restorative actions required to extend the shelf life of materiel when authorized. This document does not encompass quality assurance requirements contained within the Stock Readiness (SR) program policy in accordance with DLA Instruction (DLAI) 4145.4/AR 740-3/AFMAN 23-231/NAVSUPINST 4400.100/MCO 4450.15 (Reference (b)).

2. <u>APPLICABILITY</u>. This Issuance applies to the DoD Components. By agreement, GSA, FAA, USCG, and NASA will comply with requirements contained within this directive in accordance with DoD Manual 4140.01, Volume 5 (Reference (c)).

3. <u>DEFINITIONS</u>. See Glossary.

4. <u>POLICY</u>. It is DoD policy, in accordance with DoD Manual 4140.27 (Reference (d)), to maintain MQCSS records on Type II extendible shelf life materiel.

5. <u>RESPONSIBILITIES</u>. Refer to Enclosure 2.

6. <u>PROCEDURES</u>. Refer to Enclosure 3.

7. INFORMATION REQUIREMENTS.

a. Department of Defense (DD) Form 1225 "Storage Quality Control Report (SQCR)" referred to in paragraph 2.b.(3) of this Instruction.

b. DD Form 1222 "Request for and Results of Tests" referred to in paragraph 2.b.(3) of this Instruction.

c. DD Form 2477-series "Shelf Life Extension Notice" referred to in paragraph 2.b.(6) of this Instruction.

Note: An electronic version of each form noted above is available on the DoD Forms Management Program Web Site at <u>http://www.dtic.mil/whs/directives/forms/index.htm</u>.

8. <u>INTERNAL CONTROLS</u>. The Director, DoD Shelf Life Program will provide a monthly data pull of Type II shelf life National Stock Numbers (NSNs) whose shelf life extension information is omitted from the MQCSS portion of Shelf Life Extension System (SLES) to the managing DoD Components and GSA. The managing DoD Components and GSA are responsible for updating the MQCSS in SLES and will provide monthly updates to the Director, DoD Shelf Life Program.

9. <u>RELEASABILITY</u>. UNLIMITED. This Instruction is approved for public release and is available on the Internet from the DLA Issuances Website at http://www.dla.mil/issuances/.

10. EFFECTIVE DATE. This Instruction:

a. Is effective on July 28, 2015.

b. Must be reissued, cancelled, or certified current within 5 years of its publication in accordance with DLAI 5025.01, DLA Issuance Program. If not, it will automatically expire effective July 28, 2025 and be removed from the DLA Issuances Website.

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Enclosure(s) Enclosure 1 – References Enclosure 2 – Responsibilities Enclosure 3 – Procedures Enclosure 4 – Defect Characteristics Codes Glossary

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ENCLOSURE 1

REFERENCES

- (a) DLAD 4155.37/AR 702-18/NAVSUPINST 4410.56A/AFJMAN 23-232/MCO 4450.13A, "Materiel Quality Control Storage Standards for Shelf Life Materiel," April 21, 2006 (hereby cancelled)
- (b) DLAI 4145.4/AR 740-3/AFMAN 23-231/NAVSUPINST 4400.100A/MCO 4450.15A, "Stock Readiness," November 9, 2012
- (c) DoD Manual 4140.01, Volume 5, "DoD Supply Chain Materiel Management Procedures: Delivery of Materiel," February 10, 2014
- (d) DoD 4140.27-M, "Shelf Life Management Manual," May 5, 2003
- (e) DLAI 5025.01, "Defense Logistics Agency (DLA) Issuance Program," January 4, 2013
- (f) DoD Directive 5105.22, "Defense Logistics Agency," May 17, 2006
- (g) AR 715-13/DLAR 3200.1/NAVSUPINST 4120.30/AFR 400-40/MCO 4000.18C, "Engineering Support for Items Supplied by Defense Logistics Agency and General Services Administration," 13 March 1986
- (h) DoD 4100.39-M, "Federal Logistics Information System Procedures Manual," Volumes 3, 4, and 10, dates vary
- (i) ANSI/ASQ Z1.4, "Sampling Procedures and Tables for Inspection by Attributes," 2008
- (j) MIL-STD-1916, "DoD Preferred Methods for Acceptance of Product," April 1, 1996
- (k) DoD 4160.21-M,"Defense Materiel Disposition Manual," August 18, 1997
- DLM 4000.25-2, "Military Standard Transaction Reporting and Accountability Procedures (MILSTRAP)," June 13, 2012
- (m) FED-STD-793, "Depot Storage Standards," May 22, 2006
- (n) 29 CFR 1910.1200, "Hazardous Communication"
- (o) DLM 4000.25 "Defense Logistics Management System (DLMS)", Volume 2, June 13, 2012
- (p) Joint Publication 1-02, "Department of Defense Dictionary of Military and Associated Terms," 8 November 2010 as amended through 15 June 2013.

(q) MIL-STD-129R, "Department of Defense Standard Practice- Military Marking for Shipment and Storage," 18 February 2014

References are current as of this publishing. Always use most current version of reference.

RESPONSIBILITIES

1. <u>DIRECTOR, DLA</u>. The Director, DLA must:

a. Establish DoD MQCSS shelf life management policies in accordance with the responsibilities assigned in DoD Directive 5105.22 (Reference (f)) and Reference (d).

b. Direct implementation of DoD MQCSS shelf life management policies in a uniform manner throughout the DoD; and monitor and evaluate their effectiveness.

c. Develop, update, and maintain MQCSS information for Type II (extendible) shelf life items for which DLA has integrated materiel management (IMM) responsibility.

d. Provide previously developed MQCSS information to gaining Military Service or GSA Inventory Control Point (ICP) upon logistics reassignment of IMM responsibility.

e. Maintain a liaison with the Military Services, GSA, NASA, FAA and USCG, to assist in resolving issues related to the DoD MQCSS program.

f. Ensure compliance with the provisions of this directive within DLA.

2. DIRECTOR, DLA LOGISTICS OPERATIONS (J3). The J3 must:

a. Administer DoD MQCSS shelf life management policies in accordance with Reference (f) and Reference (d).

b. Budget and program adequate resources to accomplish the requirements of this directive.

3. DIRECTOR, DLA MATERIEL POLICY, PROCESS & ASSESSMENT (J34). The J34 must:

a. Keep this Instruction current and issue revised policy necessary to maintain effective management of Type II (extendible) shelf life items.

b. Maintain the DoD SLES on the DoD Shelf Life Website.

4. <u>SECRETARIES OF THE MILITARY DEPARTMENTS</u>. Secretaries of the Military Departments must:

a. Develop, update, and maintain MQCSS information for Type II (extendible) shelf life items for which their respective Military Service has IMM responsibility.

b. Develop, update, and maintain MQCSS technical information as part of the materiel developer logistics support and/or quality assurance portions of the technical data package and provide as needed to DLA or GSA ICPs having IMM responsibility.

c. Provide previously developed MQCSS information to gaining DLA or GSA ICPs upon logistics reassignment of IMM responsibility.

d. Implement DoD MQCSS shelf life management policies in a uniform manner; and monitor and evaluate their effectiveness.

e. Maintain a liaison with the other Military Services, DLA, GSA, NASA, FAA, and the USCG in resolving issues related to the MQCSS program.

f. Ensure compliance with the provisions of this directive within their respective Military Services.

g. Budget and program adequate resources to accomplish the requirements of this directive.

5. <u>COMMANDANT, USCG AND THE ADMINISTRATORS, GSA, NASA AND FAA.</u> Commandant, USCG and the Administrators, GSA and FAA must, and at their discretion:

a. Develop, update, and maintain MQCSS information for Type II (extendible) shelf life items for which they have IMM responsibility.

b. Provide previously developed MQCSS information to gaining Military Service or DLA ICPs upon logistics reassignment of IMM responsibility.

c. Implement DoD MQCSS shelf life management policies in a uniform manner; and monitor and evaluate their effectiveness.

d. Maintain a liaison with the Military Services and DLA in resolving issues related to the MQCSS program.

e. Budget and program adequate resources to accomplish the requirements of this directive.

6. INVENTORY CONTROL POINTS. The ICPs must:

a. Establish and maintain MQCSS data records in the web-based DoD SLES, as described in Enclosure 3, for all Type II shelf life items they have IMM responsibility. SLES data records may also be developed and maintained for Type I shelf life items that have particular storage and/or surveillance requirements that directly affect the shelf life of the materiel.

b. Request engineering support from Engineering Support Activities (ESAs) when accomplishing technical changes including shelf life code and extension information to the MQCSS data records, in accordance with AR 715-13/NAVSUPINST 4120.30/AFI 400-40/MCO 4000.18/DLAR 3200.1 (Reference (g)).

c. Integrate ESA-provided MQCSS technical information into the data records in the DoD SLES, and any ICP-unique MQCSS documents as described in Enclosure 3.

d. Respond to requests for shelf life extension testing when received from storage activities (SA).

e. Respond to Feedbacks and SLC Challenges submitted by customers, as described in Enclosure 3.

f. Jointly develop with the ESA criteria for and ensure availability of DoD-approved laboratories to perform shelf life extension testing.

7. ENGINEERING SUPPORT ACTIVITIES. The ESAs must:

a. Initially, develop MQCSS technical information as part of the logistics support and/or quality assurance portions of the technical data package. MQCSS technical information includes data elements as identified in Table 1 of Enclosure 3.

b. Jointly develop with the ICP, criteria for shelf life extension testing; ensure availability of DoD-approved laboratories to perform shelf life extension testing; and, if necessary, perform engineering functions in accordance with MQCSS information when shelf life extension testing is performed.

c. Provide assistance to ICP as needed in response to SLC Challenges.

8. <u>STORAGE ACTIVITIES</u>. SAs must use the shelf life extension criteria in the DoD SLES to determine how to extend the shelf life of Type II items.

ENCLOSURE 3

PROCEDURES

1. <u>DoD SLES</u>. The web-based SLES is the central DoD data repository for both the MQCSS information and the Quality Status List (QSL) DoD-approved laboratory test results. The MQCSS system is the authority for shelf life extension when visual inspection only is required. The MQCSS system and QSL system are the authority for shelf life extension when visual inspection and laboratory or machine testing are required.

a. <u>MQCSS system</u>. ICP MQCSS data and information will be in the SLES MQCSS system. Table 1 lists the standard data elements for establishing MQCSS data records in the SLES. Data elements for MQCSS are defined in the Glossary. When MQCSS data elements in the DoD SLES are unpopulated without justification, or contain inaccurate or unclear information, the applicable ICP shelf life focal point as listed at https://www.shelflife.hq.dla.mil will be responsible for remedial action.

(1) When available, supplemental ICP -unique MQCSS documents (e.g., supply bulletins (SBs), storage serviceability standards, manuals, technical publications), will be in the MQCSS, but will NOT substitute MQCSS data elements. Supplemental MQCSS document content may include:

(a) Administrative guidance such as definitions and acronyms not included in this directive, unique publication requirements, reference documents, reporting procedures, procedures for deviation requests, etc.

(b) Technical guidance such as test sample submission and lotting procedures; inspection and/or testing procedures; test equipment; training available; inspector certification requirements; item preservation, packing, or packaging; safety considerations; special instructions, etc.

Table 1 Materiel Quality Control Storage Standard Data Elements			
DATA ELEMENT	EXAMPLE	CODE DEFINITION SOURCE	
	INPUT		
National Stock Number (NSN)	1234-00-123-4567	DoD 4100.39-M Vol 4	
		(Reference (h))	
Approved Item Name	Widget	H6 Federal Item Name Dir.	
Unit Price	\$49.95	DoD 4100.39-M V10 Table 97	
Unit of Issue	EA	DoD 4100.39-M V10 Table 53	
Source of Supply (SOS) Code	SMS	DoD 4100.39-M V10 Table 103	
Inspection Type Code	V & L	DLAI 4155.37	
(Note 1)			
Visual Defect Characteristics	A1, B2, C4, F5,	DLAI 4155.37	
Code(s)	etc.		
Shelf Life Code (SLC)	9	DoDI 4140.27 (Reference (d))	

DATA ELEMENT	EXAMPLE	CODE DEFINITION SOURCE
	INPUT	
Shelf Life Months	60	DoDI 4140.27
Shelf Life Item Type	II	DoDI 4140.27
Extension Months	30, 20, 10	DLAI 4155.37
Number of Extensions	3	DLAI 4155.37
Maximum Age (in months)	120	DLAI 4155.37
	SB 700-XX,	
Technical Publications	FED-STD-793	DLAI 4155.37
Remarks		n/a
Item Type Storage Code	А	DoD 4100.39-M V10 Table 182
Sampling Plan (Note 2)	ANSI/ASQ Z1.4	ANSI/ASQ Z1.4 (Reference (i))
		or MIL-STD-1916 (Reference (j))
Acceptable Quality Limit (AQL)	6.5	ANSI/ASQ Z1.4
Inspection or Verification Level	G2 or VL-II	ANSI/ASQ Z1.4 or MIL-STD-1916
Code		
Hazardous Materials Indicator	Y	DoD 4100.39-M V10 Table 179
Code		

Materiel Quality Control Storage Standards Data Elements, continued.

(2) All Type II NSNs require a visual inspection (code "V"). When laboratory (code "L") or machine (code "M") testing, or restoration action (code "R") is also required, the visual inspection must be accomplished before test sample submission, restoration, or shelf life extensions.

(3) If ANSI/ASQ Z1.4 is cited, AQL and an Inspection Level code will be specified. If MIL-STD-1916 is cited, a Verification Level code will be specified in lieu of Inspection Level code and AQL will be
blank>.

b. <u>QSL</u>. The QSL is the DoD recognized centralized repository of test results of Type II shelf life item samples that have been tested by DoD-approved laboratories. The QSL may not contain test results for all NSN/lot/batch combinations contained in the DoD inventory. Storage activities at all levels (i.e., wholesale, retail, and consumer/end user) may use QSL test results to extend or dispose of their materiel. QSL test results with supply condition code "A" may be used as authority to extend Type II shelf life materiel if the materiel meets the requirements in paragraph 1.b.(1) below, provided that materiel has been stored and packaged appropriately. QSL test results with supply condition code "H" may be used as authority for disposal of materiel; however, materiel owners will have final decision authority on materiel disposition.

(1) QSL test results will be associated with particular inventories of Type II items as identified by matching NSN, lot/batch number, contract number, and date manufactured (when available). Type II item inventories with specific NSN/lot/batch identification that have no matching identification data in the QSL have either 1) not had samples submitted for testing or 2) are currently undergoing testing with results pending, or 3) do not require laboratory testing or 4) require 100% testing or restoration.

Table 2				
Quality Status List Data Elements				
DATA ELEMENT	EXAMPLE INPUT	NOTES		
National Stock Number	XXXX-XX-XXX-XXXX	N/A		
Approved Item Name	Widget	N/A		
Contract Number	SPM4AR-09-D-0002	N/A		
Source of Supply	SMS	N/A		
Lot/Batch Number	A123	N/A		
Federal or Military	MIL-PRF-9999	Includes DoD-adopted Non-		
Specification		Government Standards		
Date Manufactured	MM YYYY	N/A		
Date Tested	MM YYYY	N/A		
Next Insp/Test Date	MM YYYY	N/A		
Supply Condition Code	A or H	N/A		
Issue To	All DoD, Army, Navy,	Issue to all Services/Agencies.		
	AF, USMC, Coast Guard	Specify applicable		
		Service(s)/Agency(ies)		
Issue To	Disposal	Condemned – do not issue and		
		consign to disposal.		
Laboratory Code	WPA	Laboratory performing the		
		testing.		

(2) Table 2 lists the standard data elements for establishing QSL data records within the SLES.

c. <u>Feedback</u>. When data elements in the DoD SLES are unpopulated without justification or contain inaccurate or un-interpretable information, deficiencies may be reported using the automated SLES "Feedback" feature, or by contacting the applicable ICP shelf life focal point or Service/Agency shelf life Administrator, as listed at https://www.shelflife.hq.dla.mil.

(1) The ICP shelf life focal point or the Service/Agency shelf life Administrator is responsible for ensuring the Feedback is appropriately answered within 5 business days of receipt. If the Feedback cannot be answered within this timeframe, a response to the generator with an updated status is required.

(2) When a Feedback is submitted, the generator will receive a confirmation tracking number. If a response or updated status is not received within 5 business days, the generator may contact the Director, DoD Shelf Life Program at SLES.DOD@dla.mil for resolution.

d. <u>SLC Challenge</u>. The SLC "Challenge" feature in the SLES is used to request a reevaluation of a currently assigned shelf life period/code associated with a specific national stock numbered item. Challenge submissions should include a recommended alternative shelf life period with justification, e.g., a lesser or greater degree of deterioration while in storage. (1) When a SLC Challenge is submitted, the managing ICP's Item Manager or Product Specialist is responsible for responding to the Challenge within 5 business days of receipt. If the Challenge cannot be answered within this timeframe, a response to the generator with an updated status is required.

(2) If a response or updated status is not received within 5 business days, the generator may contact the Director, DoD Shelf Life Program at SLES.DOD@dla.mil for resolution.

2. <u>STORAGE ACTIVITY (SA) AND END USER</u>. All shelf life items must be stored in proper storage environments, e.g., controlled temperature warehouse, per the item type storage code in the MQCSS system, during the entire shelf life period and during all extension periods. Materiel supply condition classifications relevant to shelf life, i.e., "A", "B", "C", "J" and "H", will be in accordance with Reference (d). When possible, shelf life items will remain in original unit packs while in storage. The integrity of the package should not be compromised and should not be opened, except when necessary to perform inspections, testing, or restorative actions, in which the package will then be restored to its original condition for serviceable materiel.

a. <u>Type I shelf life items</u>. Except for kits and medical pharmaceutical items, Type I shelf life items have an assigned finite shelf life and are not authorized for extension. Type I items that exceed their expiration date will be processed for disposition in accordance with DoD 4160.21-M (Reference (k)). One exception is the DoD/ Food and Drug Administration (FDA) Shelf Life Extension Program (SLEP) for Medical Items administered by the DoD in coordination with the Defense Medical Materiel Program Office and FDA. This program is applicable to specific Type I and Type II medical pharmaceuticals in Federal Supply Class 6505. The SB 8-75 series, Medical Materiel Quality Control messages, and other SLEP messages will provide guidance for participation in the program.

b. <u>Type II shelf life items</u>. All DoD SAs and end users of shelf life materiel will use the complete set of data contained in DoD MQCSS data when determining how to extend the shelf life of Type II items through visual inspection, test, or restorative actions.

(1) <u>SL Extension Process Time Frame</u>. For a Type II item that has not been issued, unless it is planned to place the item into service prior to the Insp/Test Date, the shelf life item extension process should begin NINE MONTHS before the inspect/test date for items requiring laboratory testing, and SIX MONTHS before the inspect/test date for items requiring visual inspections, to minimize the risk of materiel migrating to supply condition classification other than "A". When awaiting inspection and/or testing results, suspended and unserviceable stock will be supply condition classified in accordance with DoD 4000.25-2-M (Reference (1)) and Reference (d)). When smaller-size samples are extracted from larger-size unit-of-issue containers, the unit-of-issue containers will be marked or labeled with a statement indicating the amount of the sample, e.g., "1-gallon sample extracted for shelf life testing."

(2) <u>Visual inspections</u>. Visual inspections for Type II items will be accomplished using the criteria in the MQCSS visual defect characteristics codes (Enclosure 4). When necessary, additional instructions for performing visual inspections may be contained in applicable technical publication(s) as cited in the Technical Publications data element and made available

on the DoD shelf life web site, but will not substitute for the visual defect characteristics codes. Visual inspections may also be accomplished on a 100 percent basis unless the large amount of items on hand or the destructive nature of the inspection makes this prohibitive. Failure of one or more criteria will result in a failed inspection unless otherwise indicated in the applicable sampling plan.

(a) For items requiring visual inspection and testing/restorative action, the visual inspection must always be accomplished before testing or restorative actions. When items fail visual inspection, testing or restoration actions will not be accomplished. Restoration actions will always be accomplished on a 100 percent basis. On items that have missing/damaged packaging and require visual inspection only, SAs will perform those inspections on a 100 percent basis, and will only extend materiel that unmistakably passes the inspection criteria contained in DoD SLES.

(b) All visual inspections will be performed by personnel determined qualified by the local chain of command or more stringent qualifications when recommended by the ICP and in the corresponding MQCSS data record(s). Personnel will be trained to properly perform visual inspections for Type II shelf life extensions. It is recommended that inspection personnel successfully complete DoD Shelf Life training as described in Reference (d).

(3) <u>Laboratory/machine testing</u>. When Type II shelf life items require laboratory or machine testing, all SAs will initially assess whether prior testing has already been accomplished as described in paragraph 1.b. When QSL test results can't be applied to the materiel, wholesale SAs and retail SAs that are not the materiel owners will submit a DD Form 1225 to the materiel owner requesting disposition per Reference (b). Materiel owners will perform an analysis to determine whether it would be cost-effective to submit a sample for testing. Considerations in the analysis should include the quantity and cost of inventory on-hand, item application criticality, DoD-approved laboratory availability, testing costs, transportation costs, disposal costs to include hazardous waste when applicable, and availability of resupply. The analysis should include consideration of higher-level supply inventories (e.g., using enterprise data system), particularly for hazardous materiel, to the greatest extent possible. If testing is required, materiel owners will provide sampling and testing instructions to SAs using DD Form 1225.

Specific DoD-approved laboratory contact information is available in the SLES or by contacting the appropriate Service/Agency Administrator listed on the DoD shelf life web site at https://www.shelflife.hq.dla.mil. Unless otherwise instructed, a completed DD Form 1222 will accompany all shipments of samples. Test laboratories will provide test results to requestors using DD Form 1222 and also ensure that test results data are entered into the QSL.

(4) <u>Sampling</u>. Sampling will be accomplished in accordance with the sampling plan, acceptable quality limit, and inspection level when specified in the DoD SLES MQCSS data, or in accordance with testing laboratory instructions. Every effort should be made to obtain a random sample from the entire on-hand inventory. After inspection, sample items that are still in a serviceable condition will be preserved and packaged to their original packaging requirements, classified to the applicable supply condition code, and returned to storage. Disposition instructions will be requested for unserviceable sample items.

(5) <u>Type II Shelf Life Extensions</u>. Type II shelf life item extensions are applied to materiel in the following way:

(a) Visual inspection only: Materiel that has passed visual inspection in accordance with paragraph 2.b.(2)

(b) Laboratory/machine testing: Materiel that has passed visual inspection and has the same identification (NSN, lot/batch number, contract number, and date manufactured (when required)) as the sample that has passed testing with the test results in the QSL in accordance with paragraph 2.b.(2) - (4).

(c) Restoration: Materiel that has passed visual inspection and restoration has been accomplished on a 100 percent basis.

(d) When the inspection limit or the maximum age of the materiel is not exceeded: When a successful inspection/test is accomplished on materiel in a suspended supply condition due to the most recent inspect/test date having passed, the full extension interval applicable to that sequential inspection will be allowed as long as the maximum age of the materiel, when specified, is not exceeded. Type II items that do not successfully pass inspection, test, or restorative action will be processed for disposition in accordance with Reference (d).

(6) <u>Shelf Life Extension Notice</u>. Type II items that have successfully passed visual inspection, testing and/or restoration will have DD Form 2477-series affixed to all exterior, intermediate, and unit pack containers, preferably during storage but necessary upon issue/shipment, and also displayed in a conspicuous place at each applicable storage location. GSA items extended at the wholesale level will display the GSA shelf life extension label referenced in FED-STD-793 (Reference (m)).

(a) DD Form 2477-series is produced in three sizes - DD Form 2477-1: Large (8" x 11.5"), DD Form 2477-2: Medium (3" x 5"), and DD Form 2477-3: Small (1"x 3"). Locally produce and modify the DD Form 2477-series shelf life extension notices to fit the size of the container.

(b) All entries on the shelf life extension notice must be completed. The actual Dates of Inspect/Test and corresponding Next Inspect/Test Dates for materiel undergoing multiple extensions will be recorded on the original shelf life extension notice, unless missing or completely filled, and specify the number of the extension accomplished, e.g., 1st, 2nd. When necessary, additional shelf life extension notices must not obscure any prior extension labels/marking on the container. The Next Inspect/Test Date for materiel that has undergone and passed visual inspection and/or restoration only, and accomplished at the SA or end user level, will be computed by adding the applicable extension interval, as specified in the web-based DoD SLES, to the date of the most recent inspection or restoration. The Next Inspect/Test Date for materiel that has undergone and passed laboratory/machine testing or depot-level restoration will be provided by the testing/restoration activity or in the QSL.

(c) For extended materiel in bulk storage, the largest shelf life extension notice may be placed in front of the storage location. For extended materiel in bin storage, the smallest or intermediate shelf life extension notice may be displayed at the location.

(d) For shipments of unitized loads which contain the same extended materiel, e.g., pallets of banded or stretch-wrapped containers, the largest shelf life extension notice may be securely attached to two sides of each unitized load, in addition to individual container labels. When shrink/spin/stretch wrap is used, the notice must be inserted under the shrink/spin/stretch wrap.

(e) For shipments of unitized loads that contain different line items and on less than unit load quantities of the same line item, the largest or intermediate shelf life extension notice may be attached to each individual shipping container.

(f) For hazardous materials, the shelf life extension notices will not obscure information required for the container to remain marked and labeled in accordance with the Hazard Communication Standard, 29 Code of Federal Regulations (CFR) 1910.1200 (Reference (n)), i.e., product identity, appropriate hazard warnings, and responsible party information.

(g) At time of issue/shipment, when resources are not available at the SA to apply shelf life extension notices to unit-of-issue and intermediate packages, a sufficient number of preprinted notices must be placed inside a packing envelope and attached to the number one shipping container. The packing envelope must be plainly marked to indicate that shelf life extension notices are enclosed.

(h) Upon receipt of extended materiel, the receiver (i.e., retail or end user) will inspect the materiel and ensure that shelf life extension notices have been previously applied to all containers, or provided by the shipper as described in paragraph 2.b.(6)(g). Shipments with missing notices must be reported in accordance with the provisions outlined in DLM 4000.25 (Reference (o)) using discrepancy code P306 – shelf life markings omitted, incorrect, or not legible. Receivers will research the QSL for updated extension information as described in paragraph 1.b before materiel disposal.

ENCLOSURE 4

Visual Defect Characteristic Codes

- A1 Brittleness easily broken, snapped or torn.
- A2 Friability easily pulverized.
- A3 Crumbling broken into small pieces.
- A4 Hardening to be firm, inflexible, or not easily penetrated, as opposed to soft.
- A5 Caking compacted into a solid cake or mass.
- A6 Coagulation/Solidification to become solid, jelly-like, or the change of a liquid to a thickened state.
- A7 Painting/plating improper or inadequate.
- A8 Color not as specified.
- A9 Rips/Holes/Tears (fabrics).
- B1 Cloth deterioration (thin or bare spots).
- B2 Reserved for future use.
- B3 Mildew/Mold/Rot any discoloration, growth or decay caused by fungi.
- B4 Odor change change in normal odor of the material/chemical.
- B5 Decay/Rot.
- B6 Reserved for future use.
- B7 Product texture soft/mushy.
- B8 Product intermingling grease transfer.
- B9 Torn (Paper).
- C1 Corrosion/Rust/Oxidation eroding or chemical deterioration of metals.
- C2 Pitting/Porosity containing surface depressions, hollows or pores (as opposed to smooth).
- C3 Cuts/Abrasions/Scratches/Fraying/Deformed/Warping excessive wear, dents or bends.
- C4 Worn or used
- C5 Kinked/Tangled/Twisted/Cut or otherwise deformed (as applied to wire, rope, string thread or tape).
- C6 Burrs/Splinters.
- C7 Reserved for future use.
- C8 Moving parts do not move freely or as required.
- C9 Missing components/parts.

D1 Liquefaction - passing from dry, solid or semisolid to a liquid state.

D2 Leak (vapor): air or gas (nitrogen, oxygen, hydrogen, etc.).

D3 Evaporation/Leakage - the loss of fluid or critical oil.

D4 Moisture entrapment - critical on electronic tubes.

D5 Separation, liquid - (solution separates into layers).

D6 Decomposition - evidence by strong odor or evolution of gas.

D7 Reserved for future use.

D8 Reserved for future use.

D9 Reserved for future use

- E1 Sedimentation/Crystallization the appearance of undissolved material in solutions.
- E2 Cloudiness or haziness of solutions as opposed to clearness (clarity).
- E3 Contamination appearance of matter, which is foreign to the product, or substance in which it is contained, impurity.
- E4 Discoloration change to a color that is not normal for the materiel.
- E5 Foreign Objects such as loose material, dirt, chips, insulation (excess wax or lacquer).
- E6 Reserved for future use.
- E7 Reserved for future use.
- E8 Damaged, defective, missing item or parts.
- E9 Reserved for future use.
- F1 Freezing Damage Evidence of freezing chilled (perishable) and canned (non-perishable) products (presence of ice crystals).
- F2 Defrosting Evidence of defrosting and refreezing.
- F3 Corrosion, metals, stage I, discoloration or staining with no direct visual evidence of pitting, etching, or other surface damage.
- F4 Corrosion, metals, stage II, red, brown, green, black, or white corrosion product accompanied by minor etching or minor surface pitting.
- F5 Corrosion, metals, stage III, red, brown, green, black, or white corrosion product with or without etching, pitting, or more extensive surface deterioration resulting in a loose or granular condition.
- F6 Corrosion, metals, stage IV, red, brown, green, black, or white corrosion progressed to the point where fit, wear, function, or life of the item has been affected. Powdered or scaly condition with pits or irregular areas of material removed from the surface of the item.
- F7 Deterioration, polymeric plastic items (celluloid, bakelite, lucite, vinyl, rubber, etc.).
- F8 Deterioration, non-plastic or organic items (cloth, leather, hair, fur, felt, paper, cork, cardboard, wood, etc.).
- F9 Reserved for future use.
- G1 Fusion melting or joining of materiel.
- G2 Separation coming apart dispersion of materiel.
- G3 Peeling/Flaking/Chipping loss of exterior coatings due to failure to properly adhere.
- G4 Etching/Crazing/Checking presence of a network of fine lines (other than design) or flaws, disrupting the continuity of an exposed surface. This usually applies to materiel such as rubber, plastic and glass.
- G5 Reserved for future use.
- G6 Cleaning improper or inadequate resulting in contamination (e.g., dirt, sludge, spots, or foreign matter).
- G7 Reserved for future use.
- G8 Reserved for future use.
- G9 Reserved for future use.
- H1 Reserved for future use.
- H2 Reserved for future use.
- H3 Damaged parts.
- H4 Breakage glass, ceramic or plastic.

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H5 Telescoping (of rolled materiel).

H6 Insulation (cracked, broken or crazed, missing or damaged).

H7 Threads damaged.

H8 Threads (protectors missing).

H9 Gage(s), pressure, panel or dial - discolored, incomplete or illegible.

J1 Welding - incomplete, improperly cleaned, poor fusion.

J2 Soldering - insufficient or excessive solder, poor connection, improperly applied.

J3 Defective metal to glass seal.

J4 Defective cover to tube seal (hose).

J5 Seals broken (security/safety).

J6 Locking (Pin/Device) - damaged or missing.

J7 Suspension link missing.

J8 Reserved for future use.

J9 Reserved for future use.

K1 Insect or rodent infestation.

K2 Water damage.

K3 Spots, stains, dirt, etc.

K4 Reserved for future use.

K5 Reserved for future use.

K6 Reserved for future use.

K7 Reserved for future use.

K8 Reserved for future use.

K9 Reserved for future use.

L1 Vacuum Loss

- L2 Reserved for future use.
- L3 Reserved for future use.
- L4 Lubrication insufficient.

L5 Adhesion - (loss of).

L6 Reserved for future use.

L7 Reserved for future use.

- L8 Reserved for future use.
- L9 Parts, components, or controls loose, improperly installed or assembled, out of adjustment, do not fit, or fail to function properly.

M1 Technical Data/Color Coded - marking missing, incomplete or illegible.

(See identification marking code as indicated.)

- M2 Preservation and packing (P/P) level markings omitted, illegible, or incorrect.
- M3 Seals or caps missing for cable under pressure, thread protection, dust protection.
- M4 Data plate/materiel marking missing or incorrect.
- M5 Reserved for future use.
- M6 Inspection tag missing.
- M7 Special Instructions/Warnings missing, incomplete or illegible.
- M8 Operations Manual or other documentation missing, incomplete, or illegible.

M9 Defective Seals, Gaskets, "O" Rings.

N1 Special markings omitted, illegible or incorrect. Includes shelf life and lot/batch markings.

N2 Description/ID package marking missing, illegible, or incorrect

N3 Contact preservative is missing, deteriorated, or inadequate

N4 Desiccant in Method 40 package is missing, deteriorated, or inadequate

N5 Heat seal failure (package)

N6 Closure/seal failure (e.g., staples, stitching, glue or tape failure to make proper closure)

N7 Reserved for future use.

N8 Reserved for future use.

N9 Containers/boxes not secure; stapling, nailing, or banding improper or inadequate

P1 Reserved for future use.

P2 Sterile package broken.

P3 Leakers - due to pinholes, improper closure, vapor leaks (packaging).

P4 Wrapping/Barrier Materials improper or inadequate (packaging).

P5 Container damaged, deteriorated, or contaminated

P6 Electrostatic Discharge Protective package is missing, deteriorated, or inadequate

P7 Dent, lined, or internal coated container (any dent in surface which could affect internal lining or coating is a major dent)

P8 Dent, metal container - liquid (dent in chime or seam is a major defect)

P9 Preservation and packing for protection omitted or incorrect.

Q1 Coated cloth blistered.

- Q2 Tackiness (excessive).
- Q3 Coating missing.
- Q4 Wrinkles (embedded).
- Q5 Cracks or cracking.
- Q6 Reserved for future use.
- Q7 Reserved for future use.
- Q8 Reserved for future use.

Q9 Inspection instructions not covered by FED-STD-793.

R1 Reserved for future use.

R2 Unsecured, leaking, rusted, contaminated, bulged, dented, distorted, or significantly damaged (containers).

- R3 Not securely attached, unclear, illegible or incorrect (markings).
- R4 Hard settling, caking, jelling, skinning, curdling, seeding, rusting, putrefaction, separation (Coatings).
- R5 Not in uniform suspension with settling or caking (Ink).
- R6 Not mixable, not able to spray or deposit uniform film, or actuator not functional (Paint Aerosol Dispensers).
- R7 Uneven weave, with frayed edges, slits, or knots (Ribbons).
- R8 Performance unsatisfactory (Ribbons produce unclear, unclean, and illegible type impressions).

- R9 Separating, layering, settling, lumping, dispersing into inhomogeneous mixture when mixed (Sealants).
- S1 Stiffness/Dryness (Leather).
- S2 Blobbing, skipping, dotting and varying density of line intensity (Pens/Markers/Refills).
- S3 Not adhering satisfactorily (Letters).
- S4 Inhomogeneous solutions with evidence of separation, sediment, putrefaction or other degradation (Liquid Chemicals).
- S5 Not free flowing with significant water absorption or other contamination (Solid Chemicals).
- S6 Not free from grit, seeds, lumps (Coatings).
- S7 Abnormal thickening, livering, pigment flotation or excessive settling (Coatings), traces of particulate matter.
- S8 Trace of particulate matter suspended or settled (Coatings).
- S9 Mixing not accomplished by specified time (Coatings).
- T1 Reserved for future use.
- T2 Reserved for future use.
- T3 Blocked opening.
- T4 Bottle not suspended in center of chamber.
- T5 Continuity broken (single piece).
- T6 Holes/Mounting blocked, out of alignment, off size, not drilled or incorrect quality.
- T7 Reserved for future use.
- T8 Reserved for future use.
- T9 Reserved for future use.
- U1 Wormholes (wood).
- U2 Checks/splits (wood).
- U3 Evidence of reaction between the container and its contents.
- U4 Container not securely sealed and contents show evidence of deterioration.
- U5 Container not tightly sealed and contents show evidence of evaporation.
- U6 Visually observable deterioration.
- U7 Typing or printing illegible or not uniform in color on all paper copies or plies.
- U8 Carbon coating appears craked or flaky (paper).
- U9 Unsmooth, inhomogeneous mixture not free of lumps, separation or crystallization.
- V1 Evidence of debris, mildew, rot and other physical damage.
- V2 Failed testing or evaluation, or not in accordance with standard and test methods.
- V3 Evidence of cracks, holes, flaking, corrosion, or fraying.
- V4 Evidence of leaks after testing
- V5 Not demonstrating good fluidity.
- V6 Not adhering well, fraying, or other damages.
- V7 Reserved for future use.
- V8 Reserved for future use.
- V9 Reserved for future use.

W1 Reinforcement failure - (e.g., metal straps, wire, tape.)

W2 Skids, runners, or materiel handling aids damaged, inadequate, or deteriorated.

W3 Blocking and/or bracing inadequate.

W4 Dark brown or black (not white) liquid floor wax.

W5 Rancid (waterless hand cleaner).

W6 Separation into components

W7 Brittle and water absorption unsatisfactory (paper towels).

W8 Adhesive layer has separated from the plastic sheet.

W9 Ragged edges, cracks, pits, and dirt. Surface not smooth and not flat. Backing not completely covered by protective liner (Reflective sheeting)

X1 Evidence of leakage or battery terminal corrosion.

- X2 Evidence of Iodine leakage; gas permeating through bottle wall.
- X3 Kit components not intact, damaged, contaminated, and tampered with; or stained or discolored kit surroundings.
- X4 Container leaking; seal not intact or tampered with; tablet packets torn, damaged, stained, discolored, soiling, or other contamination.
- X5 Powder not free flowing without clumping or not free of foreign materials.
- X6 Reserved for future use.
- X7 Reserved for future use.
- X8 Reserved for future use.
- X9 Reserved for future use.

Y1 Straw Paper wrapping not free of holes, dirt, and discoloration.

- Y2 Evidence of ingredient separation.
- Y3 Rancid odor.
- Y4 Signs of leakage or not having sufficient moisture (towelettes).
- Y5 Showing discoloration.
- Y6 Congealed or not in powdered state.
- Y7 Adhesive no longer active or tape tears when unwound.
- Y8 Surface with adhesive has bare spots or air pockets; adhesive not uniform in thickness or tends to separate from plastic tubing; holders showing evidence of deterioration.
- Y9 Ribbon has holes, dirt, ragged edges, and discoloration.
- Z1 Reserved for future use.
- Z2 Reserved for future use.
- Z3 Reserved for future use.
- Z4 Reserved for future use.
- Z5 Reserved for future use.
- Z6 Reserved for future use.
- Z7 Reserved for future use.
- Z8 Reserved for future use.
- Z9 Reserved for future use

<u>GLOSSARY</u>

PART I. ABBREVIATIONS AND ACRONYMS

AFI	Air Force Instruction
AFMAN	Air Force Manual
AQL	acceptable quality limit
ANSI	American National Standards Institute
AR	Army Regulation
ASQ	American Society for Quality
CASKO	component, assembly, set, kit, outfit
CFR	Code of Federal Regulations
DLA	Defense Logistics Agency
DLAD	Defense Logistics Agency Directive
DLAR	Defense Logistics Agency Regulation
DoD	Department of Defense
ESA	engineering support activity
FAA	Federal Aviation Administration
FDA	Food and Drug Administration
FLIS	Federal Logistics Information System
GSA	General Services Administration
ICP	inventory control point
IMM	integrated materiel management
MCO	Marine Corps Order
MQCSS	materiel quality control storage standards
NASA	National Aeronautics and Space Administration
NAVSUPINST	Naval Supply Instruction
NSN	national stock number

QSL	quality status listing
SA	storage activity
SB SECNAVINST	supply bulletin Secretary of the Navy Instruction
SLEP	shelf life extension program
SLES	shelf life extension system
SOS	source of supply
USCG	United States Coast Guard
VL	verification level

PART II. DEFINITIONS

<u>AQL</u>. The quality level that is the worst tolerable process average when a continuing series of lots is submitted for acceptance sampling.

Approved item name. Defined in Reference (f).

<u>Certification (laboratory)</u>. The procedure and action by a duly authorized body, e.g., DoD/national/international organization or industry group, of determining, verifying, and attesting in writing through the issuance of credentials as to the demonstrated professional competency of a laboratory and evidenced by qualification of its personnel processes, procedures, and capabilities in accordance with defined requirements (Also see DoD-Approved Shelf Life Testing Laboratory).

<u>Characteristic</u>. A physical, chemical, visual, functional, or any other identifiable property of an item.

<u>Date assembled</u>. The date (MM/YY) items or parts are assembled into components, assemblies, sets, kits, or outfits (CASKO), or the date various CASKO's are assembled into a larger unit.

<u>Date cured</u>. The date (QTR/YY or MM/YY) the item or materiel was altered industrially. The process is sometimes referred to as vulcanizing or crosslinking, as to vulcanize (rubber) or to treat (synthetic elastomers) with heat or chemicals to make them infusible. The cure date may be indicated by the calendar quarter followed by the calendar year (e.g., 4Q05 = fourth quarter, 2005), or calendar month and year.

<u>Date manufactured</u>. The date (MM/YY) an item, materiel, or commodity was fabricated, processed, produced, or formed for use. For drugs, chemicals, and biological materials, the date

of manufacture for products submitted to the FDA for certification prior to release is the date of the official certification notice. The date of manufacture will not be shown for medical items having expiration dates.

<u>Date packed</u>. (used for subsistence only) The date (MM/YY) on which the product was packed in the primary unit container regardless of dates of secondary packing, shipping, or additional processing.

<u>Defect</u>. A departure of a quality characteristic from its intended level or state that occurs with a severity sufficient to cause an associated product or service not to satisfy intended normal, or foreseeable, usage requirements. Critical defects result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product; or prevent performance of the tactical function of a major end item. Major defects result in failure or reduce the usability of an item for its intended purpose. Minor defects have minimal effect on the effective use of an item. (See also Nonconformity)

<u>Deterioration</u>. A change in an item's characteristics caused by an environment that adversely affects its ability to function as intended.

<u>DoD-approved shelf life testing laboratory</u>. A laboratory that has been certified by an entity acting under the purview of the DoD Shelf Life Program Office as authorized to perform shelf life testing of DoD materiel. DoD-approved laboratories will undergo recertification on a regular recurring basis to maintain current DoD-approved status.

End-user. Defined in Reference (c).

Engineering support. Defined in Reference (g).

Engineering Support Activity (ESA). Defined in Reference (c).

<u>Expiration date</u>. The date by which Type I (non-extendible) shelf life items should be discarded as no longer suitable for issue or use. The date will usually be computed by adding the shelf life months to the date manufactured, date cured, date packed, or date assembled.

<u>Extension months</u>. A multi-position numeric field used within the DoD SLES to identify the shelf life extension time, in months, of a Type II shelf life item. When the extension months are multiple and variable, extension month values will be established to accommodate all subsequent inspections allowable (see Number of Extensions). The initial shelf life period added to the cumulative total of all extension month values must not exceed the maximum age, if defined. Next inspect/test dates will be computed by adding the extension months to the date of the last inspection or test.

Federal Logistics Information System (FLIS). Defined in Reference (c).

Hazardous item. Defined in Reference (c).

<u>Inspection level code</u>. A two-position standardized code used within the SLES and selected from ASQ Z1.4. It determines the relationship between the lot or batch size and the sample size. The inspection level to be used for any peculiar requirements will be prescribed by the responsible authority. Three inspection levels, G1, G2, and G3, (corresponding to I, II, and III from ANSI/ASQ Z1.4) are given for general use. Four additional special levels, S1, S2, S3, and S4, are also available and may be used where relatively small sample sizes are necessary and large sampling risks can or must be tolerated (Reference (d)). In the designation of inspection levels S1 through S4, care must be exercised to avoid Acceptable Quality Limits (AQL) inconsistent with these inspection levels. (See also "Verification Level" if MIL-STD-1916 Sampling Plan is to be used).

<u>Inspect/test date</u>. The date by which Type II (extendible) shelf life items should be subjected to its first inspection, testing, or restoration. This date will usually be computed by adding the Shelf Life Months to the Date Manufactured, Date Cured, Date Packed, or Date Assembled (also see Next Inspect/Test Date).

<u>Inspection type code</u>. A one-position standardized code used within the DoD SLES to specify one or more of the following inspection types that are necessary for extending the shelf life of an item:

Code "V" - visual inspection Code "L" - laboratory testing at a DoD-approved shelf life laboratory Code "M" - machine testing code "R" - restorative action

IMM. Defined in Joint Publication 1-02 (Reference (p)).

<u>ICP</u>. Defined in Reference (p). For the purpose of this Instruction, ICP will also refer to DLA Supply Chains.

Item type storage code. Defined in Reference (f).

<u>Laboratory code</u>. A three-position, standardized code used within the DoD SLES to specify the identity of a DoD-approved laboratory designated to perform shelf life extension testing for a particular commodity.

<u>Laboratory testing</u>. A scientific procedure applied in a controlled manner by academically trained personnel in a facility using proper laboratory instruments to determine a physical or chemical change by which a substance may be detected or properties ascertained. The physical measurement to determine conformance of an item to specified tolerances.

Lot or batch. The term lot or batch means "inspection lot" and/or "inspection batch," i.e., a collection of units of product from which a sample is to be drawn and inspected to determine conformance with the acceptability criteria. Each lot or batch will, as far as is practicable, consist of units of product of a single type, grade, class, size, and composition, manufactured under essentially the same conditions, and at essentially the same time.

<u>Machine testing</u>. A test utilizing specified and certified Defense Chemical Test Equipment to evaluate assets during storage and usage for assessing serviceability and maintainability during the cyclic shelf life management process.

<u>Materiel developer</u>. The organization responsible for research and development and production validation of an item.

<u>MQCSS</u>. Instructions for the inspection, testing, and restoration of items in storage, which encompass requirements including type of storage environment, preservation, packaging, exercising, and inspection/testing criteria with time-phasing to determine the serviceability status of materiel in storage and the degree of degradation that has occurred.

<u>Maximum age</u>. A multi-position numeric field used within DoD SLES to identify the maximum number of shelf life months of a Type II item, and computed by adding the original shelf life period to the cumulative sum of all authorized extension months. Materiel must meet extension criteria before reaching maximum age.

<u>Next inspect/test date</u>. The date by which Type II (extendible) shelf life items may be subjected to an authorized second or subsequent shelf life inspection, testing, or restoration. For items requiring visual inspection or restoration, the next Inspect/Test date will be computed by adding the applicable extension interval to the date of the most recent inspection or restoration of which the item passed. For items that have undergone/passed restoration, laboratory or machine testing, the next Inspect/Test date will be provided by the testing activity.

<u>Nonconformity</u>. A departure of a quality characteristic from its intended level or state that occurs with severity sufficient to cause an associated product or service not to meet a specification requirement. (See also Defect)

Nomenclature. A noun and any necessary modifying adjectives required to describe and identify an item of supply.

<u>Number of extensions</u>. A numeric field used within the DoD SLES to depict the total number of possible shelf life extensions (with their corresponding extension months) permitted, in addition to the original shelf life period, and which is determined by factors including rate and degree of item degradation and associated criteria, item criticality, packaging, and storage environment.

Preservation. Defined in Reference (c).

<u>Quality</u>. The composite of material attributes including performance features and characteristics of a product or service to satisfy a given need.

<u>QSL</u>. A DoD recognized listing of accumulated test results in which the laboratory testing of Type II shelf life item samples has been accomplished by DoD-approved laboratories, and can be used as an authority for extending existing inventories with the same identification as long as MQCSS requirements have been adhered to.

Retail-level supply. Defined in Reference (c).

<u>Restoration</u>. Actions performed on an item to restore it to near original or an acceptable and improved condition.

<u>Sample</u>. One or more items randomly drawn from the entire lot or batch, the total number of which is considered the sample size.

<u>Sampling plan</u>. A lot sampling plan is a statement of the sample size or sizes to be used and the associated acceptance and rejection numbers. Within DoD SLES it may include: 1) ANSI/ASQ Z1.4 and corresponding AQL and Inspection Level, 2) MIL-STD-1916 and corresponding Verification Level (VL), 3) Fixed Single Sample Size regardless of lot size, and the corresponding accept/reject criteria, or 4) other, i.e., any other statistically sound sampling plan scheme with corresponding parameters. Contact a DoD approved laboratory for additional guidance.

<u>Service life</u>. A general term used to quantify the average or standard life expectancy of an item or equipment while in use.

<u>Shelf life and shelf life months</u>. The total period of time (months or quarters) that an item may remain in storage and be able to fulfill its intended purpose, beginning with the date manufactured, date cured, date assembled, or date packed (subsistence only), and ending with the expiration date for Type I (non-extendible) items or the current inspect/test date for Type II (extendible) items. The assigned shelf life of an item can be significantly diminished and be indeterminable when primary packaging or proper storage conditions are compromised.

<u>Shelf Life Code</u>. A one-position code assigned to an NSN to identify the period of time beginning with the date of manufacture, cure, assembly, or pack and terminated by the date by which an item must be used (expiration date) or subjected to inspection, test, restoration, or disposal action. Reference (d) or Reference (h) (Table 50, Volume 10) provides a complete listing of shelf life codes cross-referencing to the period of allowed storage time expressed in months/quarters and years. Shelf life items are identified with the shelf life code in Segment H of the FLIS Total Item Record.

CODE "0" (ZERO) -- NSN is not a shelf life item.

CODE "ALPHA" Character (except Code "X") -- TYPE I (non-extendible) item. CODE "NUMERIC" Character (plus Code "X") -- TYPE II (extendible) item.

<u>SLES</u>. An automated Web-based system applicable to Type II (extendible) shelf life materiel that contains the MQCSS information and QSL laboratory test results, to be used for extending shelf life materiel.

<u>Shelf life item</u>. An item of supply possessing deteriorative or unstable characteristics to the degree that a storage time must be assigned to ensure that it will perform satisfactorily in service. All shelf life items are classified as one of the following two types:

Type I - An individual item of supply, which is determined through an evaluation of technical test data and/or actual experience, to be an item with a definite non-extendible period of shelf life. One exception is Type I medical shelf life items (Federal Supply Class 6505), which may be extended if they have been accepted into and passed testing for extension through the SLEP.

Type II - An individual item of supply having an assigned shelf life time that may be extended after completion of visual inspection, laboratory test, machine test, and/or restorative action.

<u>SA</u>. The organizational element of a distribution system, which is assigned custodial responsibility for the physical handling of materiel during its receipt, storage, and issue.

SOS code. Defined in Volume 10, Table 103 of Reference (h).

Stock readiness. Defined in Reference (b).

<u>Technical data package</u>. A technical description of an item adequate for supporting an acquisition strategy, production, engineering, and logistics support. The description defines the required design configuration and procedures required to ensure adequacy of item performance. It consists of all applicable technical data such as drawings and associated lists, patterns, specifications, standards, performance standards, quality assurance requirements, software and packaging details.

<u>Technical publications</u>. A multi-position field used within the DoD SLES, which specifies applicable publications that outline additional procedures not identified in the MQCSS coding structure (Military/Federal Specification, Technical Order, Technical Instruction, Technical Manual, Maintenance Instruction, Supply Instruction, SB, etc.)

Unit pack. Defined in MIL-STD-129 (Reference (q)).

<u>Visual defect characteristics code</u>. A code used within the DoD SLES to identify item and package characteristics that require visual inspection for the purposes of determining the serviceability of materiel and/or extending the shelf life period. Visual defect characteristics code definitions are defined in Enclosure 4 of this document.

<u>Verification level</u> (VL). Prescribes the level of significance or utility of a characteristic to the user. The amount of effort to assure conformance can be allocated on the basis of importance to the user. (Major characteristics will require more verification effort than minor characteristics.) VL-VII requires the highest level of effort, and the effort decreases as the VL decreases to the lowest level, VL-I) (Reference (j)).

<u>Visual inspection</u>. A specific type of inspection that primarily includes evaluation using sensory assessment, e.g., sight. It consists of non-destructive investigation in most cases and is conducted without the use of special laboratory equipment. It may also include measuring, examining, or gauging one or more characteristics of an item and its packaging and comparing

results with specified requirements in order to establish whether conformity is achieved for each characteristic.

Wholesale. Defined in Reference (c).