PKG & QAP
A-A-20328A
8 September 2006
SUPERSEDING
A-A-20328
W/ Change 01 27 July 2007

SECTION C

This document covers fortified peanut butter and peanut spread packaged in a flexible pouch for use by the Department of Defense as a component of operational rations.

C-1 ITEM DESCRIPTION

PACKAGING REQUIREMENTS AND QUALITY ASSURANCE PROVISIONS FOR CID A-A-20328A PEANUT BUTTER AND PEANUT SPREAD

Styles, Classes, Textures, Type, Flavors, and Fortification.

Style I	-	Peanut Butter
Class A	-	Regular
Texture 1	-	Smooth
Texture 3	-	Chunky/crunchy
Type a	-	Stabilized
Fortification b	-	Fortified

Style II	-	Peanut Spread
Class A	-	Regular
Texture 1	-	Smooth
Type a	-	Stabilized
Flavor 2	-	Chocolate
Fortification b	-	Fortified

Packages.

Package A -	Meal, Cold Weather (MCW)
Package B -	Food Packet, Long Range Patrol (LRP)
Package C -	Meal, Ready-To-Eat (MRE)
Package E-	Unitized Group Ration (UGR) – Heat & Serve
Package J -	First Strike Ration (FSR)

C-2 PERFORMANCE REQUIREMENTS

A. Product standard. A sample shall be subjected to first article (FA) or product demonstration model (PDM) inspection as applicable, in accordance with the tests and inspections of Section E of this Packaging Requirements and Quality Assurance Provisions. The approved sample shall serve as the Product Standard. Should the contractor at any time plan to, or actually produce the product using different raw material or process methodologies from the approved Product Standard, which result in a product non comparable to the Product Standard, the contractor shall arrange for a new or alternate FA or PDM approval. In any event, all product produced must meet all requirements of this document including Product Standard comparability.

B. Shelf life. The packaged product shall meet the minimum shelf life requirement of 36 months at 80°F.

C. Grade standards. Style I and Style II products shall be U.S. Grade A of the U.S. Standards for Grades of Peanut Butter in accordance with A-A-20328A.

D. Style I product. Style I product shall be regular, smooth, stabilized, fortified, peanut butter.

(1) Appearance. Style I product shall have a light brown color with a slight sheen. The product shall have no evidence of excessive heating or oiling off. Product shall be free from foreign materials.

(2) Odor and flavor. Style I product shall have a freshly roasted and freshly ground peanut odor and flavor. The packaged food shall be free from foreign odors and flavors.

(3) Texture. Style I, Texture 1 product shall have a finely ground even texture free of grainy peanut particles and shall have a soft spreadable consistency. The mouthfeel shall be slightly sticky. Style I, Texture 3, the chunky/crunchy peanut butter shall have a fine to slightly grainy texture with crunchy peanut particles.

E. Style II product. Style II product shall be chocolate flavored, smooth, stabilized, fortified, peanut spread.

(1) Appearance. Style II product shall be smooth, homogenous, medium brown color and have a slight surface sheen. The product shall have no evidence of excessive heating or oiling off. Product shall be free from foreign materials.

(2) Odor and flavor. Style II product shall have a freshly roasted and ground peanut odor and flavor with mild cocoa notes. The packaged food shall be free from foreign odors and flavors.

(3) Texture. Style II product shall have a finely ground even texture free of grainy peanut particles and shall have a soft spreadable consistency. The mouthfeel shall be slightly sticky.

F. Net weight. Style I and Style II net weight for Package A, B, E, and J shall be not less than 1.5 ounces. Style I and Style II net weight for Package C shall be not less than 1.0 ounce.

G. Palatability and overall appearance. The finished product shall be equal to or better than the approved product standard in palatability and overall appearance.

H. Fortification.

~~(1) Vitamin A content. The vitamin A content shall be not less than 2500 IU per pouch.~~

~~(2) Vitamin B6 content (pyridoxine hydrochloride). The vitamin B6 content shall be not less than 1.1 mg per pouch.~~

~~(3) Vitamin B1 content (thiamine hydrochloride). The vitamin B1 content shall be not less than 0.8 mg per pouch.~~

~~(4) Vitamin C content (ascorbic acid). The vitamin C content shall not be less than 37.5 mg per pouch.~~

(1) Package A, B, E, and J. The pouched product per 1.5 ounce serving shall contain not less than the following amounts:

Vitamin A	2500 IU
Vitamin B6	1.1 milligrams
Vitamin B1	0.8 milligrams
Vitamin C	37.5 milligrams

(2) Package C. The pouched product per 1.0 ounce serving shall contain not less than the following amounts:

Vitamin A	1665 IU
Vitamin B6	0.73 milligrams
Vitamin B1	0.53 milligrams
Vitamin C	25 milligrams

I. Aflatoxin content. The aflatoxin content of the peanut butter and peanut spread shall be negative.

C-3 MISCELLANEOUS INFORMATION

THE FOLLOWING INGREDIENTS ARE FOR INFORMATION ONLY. THIS IS NOT A MANDATORY REQUIREMENT.

A. Ingredients for style II, flavor 2. Ingredients may be as follows: roasted peanuts, sugar, hydrogenated vegetable oil (rapeseed, cottonseed and/or soybean oils), salt, vitamin C, vitamin A, vitamin B6, vitamin B1, semisweet chocolate (sugar, chocolate liquor, milkfat, cocoa butter, lecithin, vanilla), mono and diglycerides, natural and artificial vanilla, corn starch.

SECTION D

D-1 PACKAGING

A. Packaging. One and one half ounces or one ounce, as applicable of product shall be filled into a preformed barrier pouch.

(1) Pouch material. The preformed pouch shall be fabricated from 0.002 inch thick ionomer or polyethylene film laminated or extrusion coated to 0.00035 inch thick primed aluminum foil which is then laminated to 0.0005 inch thick polyester. Tolerances for thickness of plastic films shall be plus or minus 20 percent and tolerance for the foil layer

shall be plus or minus 10 percent. The material shall show no evidence of delamination, degradation, or foreign odor when heat sealed or fabricated into pouches. The material shall be suitably formulated for food packaging and shall not impart an odor or flavor to the product. For package A (MCW), the complete exterior surface of the pouch shall be colored white overall with a color in the range of 37778 through 37886 of FED-STD-595, Colors Used in Government Procurement. For package B (LRP), package C (MRE), package E (UGR) and Package J (FSR), the complete exterior surface of the pouch shall be uniformly colored in the range of 20219, 30219, 30227, 30279, 30313, 30324, or 30450 of FED-STD-595.

(2) Pouch construction. The pouch shall be a flat style pouch having maximum inside dimensions of 2-7/8 inches wide by 5-3/8 inches long. The pouch shall be made by heat sealing three edges with 3/8 inch (-1/8 inch, +3/16 inch) wide seals. The heat seals shall be made in a manner that will assure hermetic seals. The side and bottom seals shall have an average seal strength of not less than 6 pounds per inch of width and no individual specimen shall have a seal strength of less than 5 pounds per inch of width when tested as specified in E-6,A,(4),a. Alternatively, the pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective seal width to less than 1/16 inch when tested for internal pressure resistance as specified in E-6,A,(4),c. A tear notch shall be provided to facilitate opening of the filled and sealed pouch. A 1/8 inch wide lip may be incorporated at the open end of the pouch to facilitate opening and filling of the pouch.

(3) Pouch filling and sealing. One and one half ounces or one ounce, as applicable of product shall be filled into the pouch and the pouch sealed. The closure seal shall be free of foldover wrinkles or entrapped matter that reduces the effective closure seal width to less than 1/16 inch. Seals shall be free of impression or design on the seal surface that would conceal or impair visual detection of seal defects. The average seal strength shall be not less than 6 pounds per inch of width and no individual specimen shall have a seal strength of less than 5 pounds per inch of width when tested as specified in E-6,A,(4),b. Alternatively, the filled and sealed pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective closure seal width to less than 1/16 inch when tested for internal pressure resistance as specified in E-6,A,(4),c.

D-2 LABELING

A. Pouches. Each pouch shall be correctly and legibly labeled. Printing ink shall be permanent black ink or other, dark, contrasting color which is free of carcinogenic elements. The label shall contain the following information:

(1) Name and flavor of product (letters not less than 1/8 inch high)
(2) Ingredients
(3) Date 1/
(4) Net Weight
(5) Contractor's name and address
(6) "Nutrition Facts" label in accordance with the Nutrition Labeling and Education Act (NLEA) and all applicable FDA/USDA regulations.

1/ Each pouch shall have the date of pack noted by using a four-digit code beginning with the final digit of the current year followed by the three digit Julian day code. For example, 8 September 2006 would be coded as 6251. The Julian day code shall represent the day the product was packaged into the pouch.

D-3 PACKING

A. Packing for shipment to ration assembler. Not more than 40 pounds of pouched product shall be packed in a fiberboard shipping container constructed in accordance with style RSC-L, class domestic, variety SW, grade 200 of ASTM D 5118/D 5118M, Standard Practice for Fabrication of Fiberboard Shipping Boxes. Each container shall be securely closed in accordance with ASTM D 1974, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes.

D-4 MARKING

A. Shipping containers. Marking of shipping containers shall be as specified in DSCP FORM 3556 Marking Instructions for Boxes, Sacks and Unit Loads of Perishable and Semiperishable Subsistence.

SECTION E INSPECTION AND ACCEPTANCE

The following quality assurance criteria, utilizing ANSI/ASQC Z1.4, Sampling Procedures and Tables for Inspection by Attributes, are required. Unless otherwise specified, Single Sampling Plans indicated in ANSI/ASQC Z1.4 will be utilized. When required, the manufacturer shall provide the Certificate(s) of Conformance to the appropriate inspection activity. Certificate(s) of Conformance not provided shall be cause for rejection of the lot.

A. Definitions.

(1) Critical defect. A critical defect is a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending on the item; or a defect that judgment and experience indicate is likely to prevent the performance of the major end item, i.e., the consumption of the ration.

(2) Major defect. A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.

(3) Minor defect. A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

B. Classification of inspections. The inspection requirements specified herein are classified as follows:

(1) Product standard inspection. The first article or product demonstration model shall be inspected in accordance with the provisions of this document and evaluated for overall appearance and palatability. Any failure to conform to the performance requirements or any appearance or palatability failure, shall be cause for rejection of the lot. The approved first article or product demonstration model shall be used as the product standard for periodic review evaluations. All food components that are inspected by the USDA shall be subject to periodic review sampling and evaluation. The USDA shall select sample units during production of contracts and submit them to the following address for evaluation:

US Army Research, Development and Engineering Command
Natick Soldier Center
AMSRD-NSC-CF-F
15 Kansas Street
Natick, MA 01760-5018

One lot shall be randomly selected during each calendar month of production. Six (6) sample units of each item produced shall be randomly selected from that one production lot. The six (6) sample units shall be shipped to Natick within five working days from the end of the production month and upon completion of all USDA inspection requirements. The sample units will be evaluated for the characteristics of appearance, odor, flavor, texture and overall quality.

(2) Conformance inspection. Conformance inspection shall include the product examination and the methods of inspection cited in this section.

E-5 QUALITY ASSURANCE PROVISIONS (PRODUCT)

A. Product examination. The finished product shall be examined for compliance with the performance requirements specified in A-A-20328A and Section C of the Packaging Requirements and Quality Assurance Provisions document utilizing the double sampling plans indicated in ANSI/ASQC Z1.4. The lot size shall be expressed in pouches. The sample unit shall be the contents of one pouch. The inspection level shall be S-3 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.5 for major defects and 4.0 for minor defects. Defects and defect classifications are listed in table I.

TABLE I. Product defects 1/ 2/ 3/

Category		Defect
Major	Minor	
101		Product not style, class, texture, type, flavor or fortification as specified.
102		Product shows evidence of excessive heating or oiling off.
		Style I, Class A, Texture 1, Type a, Fortification b, Peanut Butter
		Appearance
	201	Product not a light brown color with a slight sheen.
		Odor and flavor
103		Product does not have a freshly roasted or freshly ground peanut odor or flavor.
		Texture
	202	Product not a finely ground even texture.
	203	Product has grainy peanut particles.

TABLE I. Product defects 1/ 2/ 3/ cont'd

Category		Defect
Major	Minor	
	204	Product not a soft spreadable consistency.
	205	Product mouthfeel not slightly sticky.
		Style I, Class A, Texture 3, Type a, Fortification b, Peanut Butter
		Appearance
	206	Product not a light brown color with a slight sheen.
		Odor and flavor
104		Product does not have a freshly roasted or freshly ground peanut odor or flavor.
		Texture
	207	Product not a fine to slightly grainy texture.
	208	Product does not have crunchy peanut particles.
		Style II, Class A, Texture 1, Type a, Flavor 2, Fortification b, Chocolate Peanut Spread
		Appearance
	209	Product not smooth or not homogenous.
	210	Product not a medium brown color with a slight sheen.
		Odor and flavor
105		Product does not have a freshly roasted or ground peanut odor or flavor with mild cocoa notes.

TABLE I. Product defects 1/ 2/ 3/ cont'd

Category		Defect
Major	Minor	
		Texture
	211	Product not a finely ground even texture.
	212	Product has grainy peanut particles.
	213	Product not a soft spreadable consistency.
	214	Product mouthfeel not slightly sticky.
		Net weight
	215	For Packages A, B, E and J, net weight of an individual pouch less than 1.5 ounces.
	216	For Package C, net weight of an individual pouch less than 1.0 ounce.

1/ Presence of any foreign materials such as, but not limited to, dirt, insect parts, hair, wood, glass, metal or mold, or any foreign odors or flavors such as, but not limited to burnt, scorched, rancid, sour, or stale shall be cause for rejection of the lot.

2/ Finished product not equal to or better than the approved product standard in palatability and overall appearance shall be cause for rejection of the lot.

3/ Failure to meet the grade requirement shall be cause for rejection of the lot.

B. Methods of inspection.

(1) Shelf life. The contractor shall provide a Certificate of Conformance that the product has a 36 month shelf life when stored at 80°F. Government verification may include storage for 6 months at 100°F or 36 months at 80°F. Upon completion of either storage period, the product will be subjected to a sensory evaluation panel for appearance and palatability and must receive an overall score of 5 or higher based on a 9 point hedonic scale to be considered acceptable.

(2) Net weight. The net weight of the filled and sealed pouches shall be determined by weighing each sample unit on a suitable scale tared with a representative empty pouch. Results shall be reported to the nearest 0.1 ounce.

(3) Fortification. The sample to be analyzed shall be a composite of eight filled and sealed pouches that have been selected at random from the lot. The composite sample shall be prepared and analyzed in accordance with the following methods of the Official Methods of Analysis of AOAC International:

Test	Method number
Vitamin A	992.06 1/
Pyridoxine hydrochloride (Vitamin B6)	985.32 1/
Thiamine hydrochloride (Vitamin B1)	986.27 1/
Ascorbic acid (Vitamin C)	984.26 1/

Test results shall be reported to the nearest milligram or microgram, as applicable.

1/ Tests will be conducted for Vitamins A, B1, B6 and C on the first production lot and USDA will verify the formula. A Certificate of Conformance will be provided on all future lots. If the formula is changed or a new contract starts, then another set of tests shall be conducted, a Certificate of Analysis will be provided and USDA will verify the formula.

(4) Aflatoxin content. Using the same composited sample, the USDA shall test for aflatoxin in accordance with the Official Methods of Analysis of AOAC International, Method 968.22. Test results shall be reported to the nearest ppb. Any detection of aflatoxin will be cause for rejection of the lot.

NOTE: The following conditions apply for aflatoxin testing:

(1) For prepackaged peanut butter or peanut spread received from a supplier and is not further processed, the contractor will furnish a Certificate of Analysis that the peanut butter ingredient represented is not greater than 15 ppb for aflatoxin.

(2) For bulk peanut butter received, the contractor is responsible for providing a USDA certificate of analysis stating that the bulk product is not greater than 15 ppb in aflatoxin. When end item lots are manufactured using that bulk peanut butter and both the bulk and end item lots' identities have been preserved, then no further aflatoxin testing is required.

(3) If peanut butter is received in bulk, and the conditions in (2) above are not met, each end-item lot must be sampled and tested by USDA. End item lots determined to be not greater than 15 ppb in aflatoxin as evidenced by a USDA Certificate will be considered acceptable. Bulk peanut butter with aflatoxin greater than 15 ppb shall not be used as an ingredient.

E-6 QUALITY ASSURANCE PROVISIONS (PACKAGING AND PACKING MATERIALS)

A. Packaging.

(1) Pouch material certification. Material listed below may be accepted on the basis of a contractor's Certification of Conformance (CoC) to the indicated requirements. In addition, compliance to the requirements for inside pouch dimensions and dimensions of manufacturer's seals may be verified by CoC.

Requirement	Requirement paragraph	Test procedure
Thickness of films for laminated material	D-1,A,(1)	ASTM D 2103 1/
Aluminum foil thickness	D-1,A,(1)	ASTM B 479 2/
Laminated material identification and construction	D-1,A,(1)	Laboratory evaluation
Color of laminated material	D-1,A,(1)	Visual evaluation by FED-STD-595 3/

1/ ASTM D 2103 Standard Specification for Polyethylene Film and Sheeting

2/ ASTM B 479 Standard Specification for Annealed Aluminum Foil for Flexible Barrier Application

3/ FED-STD-595 Colors Used in Government Procurement

(2) Unfilled preformed pouch certification. A CoC may be accepted as evidence that unfilled pouches conform to the requirements specified in

D-1,A,(1). When deemed necessary by the USDA, testing of the unfilled preformed pouches for seal strength shall be as specified in E-6,A,(4),a.

(3) Filled and sealed pouch examination. The filled and sealed pouches shall be examined for the defects listed in table II. The lot size shall be expressed in pouches. The sample unit shall be one pouch. The inspection level shall be I and the AQL, expressed in terms of defects per hundred units, shall be 0.65 for major defects and 2.5 for minor defects.

TABLE II. Filled and sealed pouch defects 1/

Category		Defect
Major	Minor	
101		Tear or hole or open seal.
102		Seal width less than 1/16 inch. 2/
103		Presence of delamination. 3/
104		Unclean pouch. 4/
105		Pouch has foreign odor.
106		Any impression or design on the heat seal surfaces which conceals or impairs visual detection of seal defects. 5/
107		Not packaged as specified.
	201	Label missing or incorrect or illegible.
	202	Tear notch missing or does not facilitate opening.
	203	Seal width less than 1/8 inch but greater than 1/16 inch.
	204	Presence of delamination. 3/

1/ Any evidence of rodent or insect infestation shall be cause for rejection of the lot.

2/ The effective closure seal is defined as any uncontaminated, fusion bonded, continuous path, minimum 1/16 inch wide, from side seal to side seal that produces a hermetically sealed pouch.

3/ Delamination defect classification:

Major - Delamination of the outer ply in the pouch seal area that can be propagated to expose aluminum foil at the food product edge of the pouch after manual flexing of the delaminated area. To flex, the delaminated area shall be held between the thumb and forefinger of each hand with both thumbs and forefingers touching each other. The delaminated area shall then be rapidly flexed 10 times by rotating both hands in alternating clockwise- counterclockwise directions. Care shall be exercised when flexing delaminated areas near the tear notches to avoid tearing the pouch material. After flexing, the separated outer ply shall be grasped between thumb and forefinger and gently lifted toward the food product edge of the seal or if the separated area is too small to be held between thumb and forefinger, a number two stylus shall be inserted into the delaminated area and a gentle lifting force applied against the outer ply. If separation of the outer ply can be made to extend to the product edge of the seal with no discernible resistance to the gentle lifting, the delamination shall be classified as a major defect. Additionally, spot delamination of the outer ply in the body of the pouch that is able to be propagated beyond its initial borders is also a major defect. To determine if the laminated area is a defect, use the following procedure: Mark the outside edges of the delaminated area using a bold permanent marking pen. Open the pouch and remove the contents. Cut the pouch transversely not closer than 1/4 inch ($\pm$1/16 inch) from the delaminated area. The pouch shall be flexed in the area in question using the procedure described above. Any propagation of the delaminated area, as evidenced by the delaminated area exceeding the limits of the outlined borders, shall be classified as a major defect.

Minor - Minor delamination of the outer ply in the pouch seal area is acceptable and shall not be classified as a minor defect unless it extends to within 1/16 inch of the food product edge of the seal. All other minor outer ply delamination in the pouch seal area or isolated spots of delamination in the body of the pouch that do not propagate when flexed as described above shall be classified as minor defects.

4/ Outer packaging shall be free from foreign matter which is unwholesome, has the potential to cause pouch damage (for example, glass, metal filings) or generally detracts from the clean appearance of the pouch. The following examples shall not be classified as defects for unclean:

a. Foreign matter which presents no health hazard or potential pouch damage and which can be readily removed by gently shaking the package or by gently brushing the pouch with a clean dry cloth.

b. Dried product which affects less than 1/8 of the total surface area of one pouch face (localized and aggregate).

c. Water spots.

5/ If doubt exists as to whether or not the sealing equipment leaves an impression or design on the closure seal surface that could conceal or impair visual detection of seal defects, samples shall be furnished to the contracting officer for a determination as to acceptability.

(4) Seal testing. The pouch seals shall be tested for seal strength as required in a, b, or c, as applicable.

a. Unfilled preformed pouch seal testing. The seals of the unfilled preformed pouch shall be tested for seal strength in accordance with ASTM F 88, Seal Strength of Flexible Barrier Materials. The lot size shall be expressed in pouches. The sample size shall be the number of pouches indicated by inspection level S-1. Three adjacent specimens shall be cut from each of the three sealed sides of each pouch in the sample. The average seal strength of any side shall be calculated by averaging the three specimens cut from that side. Any average seal strength of less than 6 pounds per inch of width or any test specimen with a seal strength of less than 5 pounds per inch of width shall be classified as a major defect and shall be cause for rejection of the lot.

b. Pouch closure seal testing. The closure seals of the pouches shall be tested for seal strength in accordance with ASTM F 88. The lot size shall be expressed in pouches. The sample size shall be the number of pouches indicated by inspection level S-1. Three adjacent specimens shall be cut from the closure seal of each pouch in the sample. The average seal strength of the closure shall be calculated by averaging the three specimens cut from that closure. Any average seal strength of less than 6 pounds per inch of width or any test specimen with a seal strength of less than 5 pounds per inch of width shall be classified as a major defect and shall be cause for rejection of the lot.

c. Internal pressure test. The internal pressure resistance shall be determined by pressurizing the pouches while they are restrained between two rigid plates. The sample size shall be the number of pouches indicated by inspection level S-1. If a three seal tester (one

that pressurizes the pouch through an open end) is used, the closure seal shall be cut off for testing the side and bottom seals of the pouch. For testing the closure seal, the bottom seal shall be cut off. The pouches shall be emptied prior to testing. If a four-seal tester (designed to pressurize filled pouches by use of a hypodermic needle through the pouch wall) is used, all four seals can be tested simultaneously. The distance between rigid restraining plates on the four-seal tester shall be equal to the thickness of the product +1/16 inch. Pressure shall be applied at the approximate uniform rate of 1 pound per square inch gage (psig) per second until 14 psig pressure is reached. The 14 psig pressure shall be held constant for 30 seconds and then released. The pouches shall then be examined for separation or yield of the heat seals. Any rupture of the pouch or evidence of seal separation greater than 1/16 inch in the pouch manufacturer's seal shall be considered a test failure. Any seal separation that reduces the effective closure seal width to less than 1/16 inch (see table II, footnote 2/) shall be considered a test failure. Any test failure shall be cause for rejection of the lot.

B. Packing.

(1) Shipping container and marking examination. The filled and sealed shipping containers shall be examined for the defects listed in table III below. The lot size shall be expressed in shipping containers. The sample unit shall be one shipping container fully packed. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 4.0 for major defects and 10.0 for total defects.

TABLE III. Shipping container and marking defects

Category		Defect
Major	Minor	
101		Marking missing or incorrect or illegible.
102		Inadequate workmanship. 1/
	201	More than 40 pounds of product

1/ Inadequate workmanship is defined as, but not limited to, incomplete closure of container flaps, loose strapping, inadequate stapling, improper taping, or bulged or distorted container.

SECTION J REFERENCE DOCUMENTS

DSCP FORMS

DSCP FORM 3556	Marking Instructions for Boxes, Sacks and Unit Loads of Perishable and Semiperishable Subsistence

FEDERAL STANDARD

FED-STD-595	Colors Used in Government Procurement

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY (ASQ)

ANSI/ASQCZ1.4-2003	Sampling Procedures and Tables for Inspection by Attributes

ASTM INTERNATIONAL

B 479-06	Standard Specification for Annealed Aluminum and Aluminum-Alloy Foil for Flexible Barrier, Food Contact, and Other Applications
D 1238-04	Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer
D 1505-03	Standard Test Method for Density of Plastics by the Density-Gradient Technique
D 1974-98 (2003)	Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
D 2103-05	Standard Specification for Polyethylene Film and Sheeting
D 5118/D 5118M-05a	Standard Practice for Fabrication of Fiberboard Shipping Boxes

F 88-06	Standard Test Method for Seal Strength of Flexible Barrier Materials

AOAC INTERNATIONAL

Official Methods of Analysis of the Association of Analytical Chemists International

U.S. STANDARDS FOR GRADES

U.S. Standards for Grades of Peanut Butter

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DEPARTMENT OF THE ARMY
U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND
NATICK SOLDIER CENTER
KANSAS STREET
NATICK, MA 01760-5018
July 27, 2007

Food Engineering Services Team

MEMORANDUM FOR Defense Supply Center Philadelphia
Directorate of Subsistence, Bldg. 6
ATTN: DSCP-FTSA
700 Robbins Avenue
Philadelphia, PA 19111-5092

SUBJECT: Approved Document Meal Ready to Eat (MRE 28) (ES07-084)

1. The U.S. Army Research, Development and Engineering Command, Natick Soldier Center is forwarding electronically the document listed below.

Document and name

CHANGE 01, PACKAGING REQUIREMENTS AND QUALITY ASSURANCE PROVISIONS FOR A-A-20328A PEANUT BUTTER AND PEANUT SPREAD

2. The ES07-084 action is based on an internal request to add a new net weight for Package C.

3. A one ounce pouch net weight has been added and will be used in the Meal Ready to Eat (MRE 28). In addition, the fortification requirements have been updated to include the smaller net weight package.

4. Request DSCP forward the item's National Stock Number (NSN) for insertion into the item's monograph. The item's monograph will then be submitted under separate cover.

5. DSN 256-5037, may be contacted if additional information is required regarding the documents.