PKG & QAP
A-A-20298B
25 September 2009
SUPERSEDING
A-A-20298A
14 September 2006
W/Change 01 23 April 2010

SECTION C

This document covers cured beef and turkey snacks 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-20298B BEEF AND TURKEY SNACKS, CURED

Varieties, types, styles, classes and flavors.

Variety A – Beef
- Type II – Moist cured/kippered
  - Style a – Chopped and formed
    - Class 1 – Strips
      - Flavor (a) – Smoked
      - Flavor (b) – Teriyaki
      - Flavor (c) – Barbeque

- Type III – Moist cured/lactate
  - Style b – Natural style
    - Class 4 – Nuggets
      - Flavor (g) – Cranberry

Variety B – Turkey
- Type III – Moist cured/lactate
  - Style b – Natural style
    - Class 4 – Nuggets
      - Flavor (a) – Smoked

Packages.

Package C – Meal, Ready-to-Eat™ (MRE™)
Package J – First Strike Ration® (FSR®)
Package L – Food Packet, Modular Operational Ration Enhancement (MORE)

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 the 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. Appearance.

(1) Variety A, type II, style a, class 1. The beef strips shall have a dark reddish brown to dark brown surface color with a slightly paler interior. The strips shall have a slightly uneven, slightly glossy, fibrous and leathery exterior surface.

(2) Variety A, type III, style b, class 4. The beef nuggets shall be 3/4 to 1-1/4 inch in length by 1/2 to 1 inch in width by 1/2 to 1 inch in height. The nuggets shall have a dark reddish brown to dark brown surface color with a slightly lighter reddish brown interior. The nuggets shall have a dried, slightly wrinkled, slightly glossy exterior surface and have a whole muscle appearance.

(3) Variety B, type III, style b, class 4. The turkey nuggets shall be 3/4 to 1-1/4 inch in length by 1/2 to 1 inch in width by 1/2 to 1 inch in height. The nuggets shall have a medium reddish brown surface color with a slightly lighter pinkish brown interior. The nuggets shall have a dried, slightly wrinkled, slightly glossy or oily exterior surface and have a whole muscle appearance.

D. Odor and flavor.

(1) Variety A, type II, style a, class 1.

a. Flavor (a) smoked beef strips shall have a dried beef, salty, cured and smoky odor and flavor.

b. Flavor (b) teriyaki beef strips shall have a dried beef, salty, cured, teriyaki, oriental seasoning and ginger odor and flavor.

c. Flavor (c) barbeque beef strips shall have a dried beef, salty, cured, barbeque spice and smoky odor and flavor.

(2) Variety A, type III, style b, class 4.

a. Flavor (g) cranberry beef nuggets shall have a dried beef, slightly sweet, slightly salty, slightly tart, cured, slightly smoky, fruity and cranberry odor and flavor.

(3) Variety B, type III, style b, class 4.

a. Flavor (a) smoked turkey nuggets shall have a dried poultry, slightly salty, slightly oily, cured and smoky odor and flavor.

E. Texture.

(1) Variety A, type II, style a, class 1. The beef strips shall be tender to bite and shall be fibrous and leathery.

(2) Variety A, type III, style b, class 4. The beef nugget shall be tender to bite and shall be fibrous and cohesive. The beef nuggets shall not be excessively dry and shall not be excessively mealy.

(3) Variety B, type III, style b, class 4. The turkey nugget shall be tender to bite and shall be dense and cohesive. The turkey nuggets shall not be excessively dry and shall not be excessively mealy.

F. Net weight.

(1) Package C, variety A, type II, style a, class 1. The net weight of the packaged product shall be not less than 22.7 grams.

(2) Package J and L, variety A, type II, style a, class 1. The net weight of the packaged product shall be not less than 51 grams.

(3) Package C and J, varieties A and B, type III, style b, class 4. The net weight of the packaged product shall be not less than 43.0 grams.

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. Analytical and microbiological tests. The following identifies the analytical and microbiological tests to be performed on the cured beef and turkey snacks in accordance with the AOAC or test methods specified in A-A-20298B. The inspection methods are specified in Sec E-5,B of this document. Type III beef and turkey snacks shall contain potassium lactate which will be verified by the ingredient statement.

Beef and turkey snacks variety and type	Protein	Fat	Sodium	pH	Water Activity	Aerobic plate count	*E. coli*
Variety A, type II	X	X	X		X	X	X
Variety A and B, type III	X	X	X	X	X	X	X

SECTION D

D-1 PACKAGING

A. Packaging. For package C, one variety A, type II, style a, class 1, flavor (a) beef strip, with or without commercial wrapping and labeling, shall be packaged in a preformed or form-fill seal barrier pouch. For package J and L, one commercially wrapped and labeled package variety A, type II, style a, class 1, flavor (b) beef strip and one commercially wrapped and labeled package variety A, type II, style a, class 1, flavor (c) beef strip shall be packaged in a preformed or form-fill seal barrier pouch. For package C and J, variety A, type III, style b, class 4, flavor (g) and variety B, type III, style b, class 4, flavor (a) beef or turkey

nuggets meeting weight requirements shall be packaged with or without commercial wrapping in a preformed or form-fill seal barrier pouch.

Comment [MTF1]: Natick case ES10-072, DSCP-SS-10-31160, Change 01, 23 Apr 10, D-1, A. Packaging., line 8, after "packaged", insert "with or"

(1) Preformed pouches.

a. 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 aluminum foil which is then laminated to 0.0005 inch thick polyester. The three plies shall be laminated with the polyester on the exterior of the pouch. 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. 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, Colors Used in Government Procurement.

b. Pouch construction. The pouch shall be a flat style preformed pouch having dimensions that accommodate the commercially wrapped package of beef snack(s). The pouch shall be made by heat sealing three edges with 3/8 inch (-1/8 inch, +3/16 inch) wide 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,B(1)a. Alternatively, the pouch shall exhibit no rupture or seal separation greater than 1/16 inch when tested for internal pressure resistance as specified in E-6,B(1)c. A tear nick, notch, or serrations 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.

c. Pouch filling and sealing. The filled pouch shall be vacuum-sealed under a vacuum level of 17 to 20 inches of mercury with a minimum 1/8 inch wide heat seal. 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,B(1)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,B(1)c.

(2) Horizontal form-fill-seal pouches.

a. Pouch material. The horizontal form-fill-seal pouch shall consist of a formed tray-shaped body with a flat sheet, heat sealable cover or a tray-shaped body with a tray-shaped heat sealable cover. The tray-shaped body and the tray-shaped cover shall be fabricated from a 3-ply flexible laminate barrier material consisting of, from outside to inside, 0.0009 inch thick oriented polypropylene bonded to 0.0007 inch thick aluminum foil with 10 pounds per ream pigmented polyethylene or adhesive and bonding the opposite side of the aluminum foil to 0.003 inch thick ionomer or a blend of not less than 50 percent linear low density polyethylene and polyethylene. The linear low density polyethylene portion of the blend shall be the copolymer of ethylene and octene-1 having a melt index range of 0.8 to 1.2 g/10 minutes in accordance with ASTM D 1238, Flow Rates of Thermoplastics by Extrusion Plastometer and a density range of 0.918 to 0.922 g/cc in accordance with ASTM D 1505, Density of Plastics by Density Gradient Technique. Alternatively, 0.0005 inch thick polyester may be used in place of the oriented polypropylene as the outer ply of the laminate. The flat sheet cover shall be made of the same 3-ply laminate as specified for the tray-shaped body except the aluminum foil thickness may be 0.00035 inch. 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 color requirements of the exterior (oriented polypropylene or polyester side) of the laminate shall be as specified in D-1,A(1)a. 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 any odor or flavor to the product.

b. Pouch construction. The tray-shaped body and the tray-shaped cover shall be formed by drawing the flexible laminate material into an appropriately shaped cavity. The flat cover shall be in the form of a flat sheet of the barrier material taken from roll stock. The filled pouch body shall be sealed with a vacuum level of 17 to 20 inches of mercury. Pouch closure shall be effected by heat sealing together the cover and body along the entire pouch perimeter. The closure seal width shall be a minimum of 1/8 inch. The closure seal 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,B(1)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,B(1)c. The dimensions of the pouches shall accommodate the commercially packaged beef snack(s). A tear nick, notch, or serrations shall be provided to facilitate opening of the filled and sealed pouch. The sealed pouches shall not show any evidence of

material degradation, aluminum stress cracking, delamination or foreign odor. Heat seals shall be free of occluded matter. Seals shall be free of impression or design on the seal surface that would conceal or impair visual detection of seal defects.

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(s) (letters not less than 1/8 inch high)
(2) Ingredients
(3) Date 1/
(4) Net Weight
(5) Name and address of packer
(6) "Nutrition Facts" label in accordance with the Nutrition Labeling and Education Act (NLEA) and all applicable 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, 14 February 2010 would be coded as 0045. The Julian day code shall represent the day the product was packaged into the pouch.

NOTE: For commercially packaged items that are overwrapped, the above information shall be printed on either the inner or outer package or both. The product name and date shall be printed on the outer package.

D-3 PACKING

A. Packing. Not more than 40 pounds of product shall be packed in a fiberboard shipping box constructed in accordance with style RSC-L of ASTM D 5118/D 5118M, Standard Practice for Fabrication of Fiberboard Shipping Boxes. The fiberboard shall conform to type CF, class D, variety SW, grade 200 of ASTM D 4727/D 4727M, Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes. Each box shall be closed in accordance with ASTM D 1974, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes.

D-5 MARKING

A. Shipping containers. Shipping containers shall be marked in accordance with 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/ASQ Z1.4, Sampling Procedures and Tables for Inspection by Attributes, are required. Unless otherwise specified, single sampling plans indicated in ANSI/ASQ 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 Research, Development and Engineering Center
RDNS-CFF
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-20298B and Section C of the Packaging Requirements and Quality Assurance Provisions document utilizing the double sampling plans indicated in ANSI/ASQ 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/

Category		Defect
Major	Minor	

General

101 Product not variety or not type or not style or not class or not flavor or not quantity as specified.

201 Presence of bone, cartilage, coarse connective tissue, tendons or ligaments or glandular material.

Variety A, type II, style a, class 1
Beef, moist cured/kippered, chopped and formed, strips

202 Beef strips do not have a dark reddish brown to dark brown surface color or do not have a slightly paler interior.

203 Beef strips exterior surface not slightly uneven or not slightly glossy or not fibrous or not leathery.

204 Beef strips texture not firm or not tender to bite.

205 Beef strips texture not chewy or not fibrous or not leathery.

Flavor (a) – Smoked

102 Beef strips odor or flavor not dried beef or not salty or not cured or not smoky.

Flavor (b) – Teriyaki

103 Beef strips odor or flavor not dried beef or not salty or not cured.

104 Beef strips odor or flavor not teriyaki or not oriental seasoning or not ginger.

TABLE I. Product defects 1/ 2/ - Continued

Category		Defect
Major	Minor	
		Flavor (c) – Barbeque
105		Beef strips odor or flavor not dried beef or not salty or not cured.
106		Beef strips odor or flavor not barbeque spice or not smoky.
		Variety A type III, style b, class 4 Beef, moist cured/lactate, natural style, nuggets
	206	Beef nuggets not 3/4 to 1-1/4 inch in length or not 1/2 to 1 inch in width or not 1/2 to 1 inch in height.
	207	Beef nuggets do not have a dark reddish brown to dark brown surface color or do not have a slightly lighter reddish brown interior.
	208	Beef nuggets exterior surface not dried or not slightly wrinkled or not slightly glossy.
	209	Beef nuggets not a whole muscle appearance.
	210	Beef nuggets texture not firm or not tender to bite.
	211	Beef nuggets not chewy or not fibrous or not cohesive.
	212	Beef nuggets texture excessively dry or excessively mealy.
		Flavor (g) – Cranberry
107		Beef nuggets odor or flavor not dried beef or not slightly sweet or not slightly salty or not slightly tart or not cured.
108		Beef nuggets odor or flavor not slightly smoky or not fruity or not cranberry.

TABLE I. Product defects 1/ 2/ - Continued

Category		Defect
Major	Minor	
		Variety B, type III, style b, class 4 Turkey, moist cured/lactate, natural style, nuggets
	213	Turkey nuggets not 3/4 to 1-1/4 inch in length or not 1/2 to 1 inch in width or not 1/2 to 1 inch in height.
	214	Turkey nuggets do not have a medium reddish brown surface color or do not have a slightly lighter pinkish brown interior.
	215	Turkey nuggets exterior surface not dried or not slightly wrinkled or not slightly glossy or oily.
	216	Turkey nuggets not a whole muscle appearance.
	217	Turkey nuggets texture not firm or not tender to bite.
	218	Turkey nuggets texture not chewy or not dense or not cohesive.
	219	Turkey nuggets texture excessively dry or excessively mealy.
		Flavor (a) - Smoked
109		Turkey nuggets odor or flavor not dried poultry or not slightly salty or not slightly oily or not cured.
110		Turkey nuggets odor or flavor not smoky.
		Net weight
		Package C, variety A, type II, style a, class 1 MRE™, beef, moist cured/kippered, chopped and formed, strips
	220	Net weight of an individual pouch less than 22.7 grams.
		Package J and L, variety A, type II, style a, class 1 FSR® and MORE, beef, moist cured/kippered, chopped and formed, strips

TABLE I. Product defects 1/ 2/ - Continued

Category		Defect
Major	Minor	
	221	Net weight of an individual pouch less than 51 grams. Package C and J, variety A, type III, style b, class 4 MRE™ and FSR®, beef, moist cured/lactate, natural style, nuggets and variety B, type III, style b, class 4 Turkey, moist cured/lactate, natural style, nuggets
	222	Net weight of an individual pouch less than 43.0 grams.

1/ Presence of any foreign materials such as, but not limited to, dirt, insect parts, hair, glass, wood, or metal or any foreign odors or flavors such as, but not limited to burnt, scorched, rancid, sour, stale, musty or moldy 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.

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 examination.

a. Commercially wrapped product in pouch. The net weight shall be verified with the label on the commercial package. Product not conforming to the net weight requirement as specified in Section C shall be cause for rejection of the lot.

b. Barrier pouch. 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 gram.

(3) Analytical and microbiological tests. The following conditions apply for analytical and microbiological testing:

a. For prepackaged product received from a supplier that is not further processed, the contractor will furnish a Certificate of Analysis (CoA) providing test results showing that the product meets all analytical and microbiological requirements. No additional testing is required.

b. For bulk product received that is to be repackaged, the contractor will furnish a CoA providing test results showing that the bulk product received meets all analytical and microbiological requirements. For protein, fat, sodium, pH, water activity, aerobic plate count, and *E. coli* testing, if the bulk and end item lot identities have been preserved, then skip lot testing may be implemented once an acceptable quality history, as determined by the contracting officer, has been established.

c. If the cured beef or turkey snacks are received in bulk and the conditions in (b) above are not met, each end item lot must be sampled and tested by the USDA and skip lot is not applicable.

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

A. Packaging.

(1) Pouch material certification. The pouch material shall be tested for these characteristics. A Certificate of Conformance (CoC) may be accepted as evidence that the characteristics conform to the specified requirements.

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

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

2/ ASTM B 479 Standard Specification for Annealed Aluminum and Aluminum-Alloy Foil For Flexible Barrier, Food Contact and Other Applications

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) a and b. When deemed necessary by the USDA, testing of the unfilled preformed pouches for seal strength shall be as specified in E-6,B(1)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.
108		Presence of stress cracks in the aluminum foil. 6/ 7/
	201	Label missing or incorrect or illegible.
	202	Tear nick or notch or serrations 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 (±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).

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.

6/ Applicable to form-fill-seal pouches only.

7/ The initial examination shall be a visual examination of the closed package. Any suspected visual evidence of stress cracks in the aluminum foil (streaks, breaks, or other disruptions in the laminated film) shall be verified by the following physical examination. To examine for stress cracks, the inside surface of both tray-shaped bodies shall be placed over a light source and the outside surface observed for the passage of light. Observation of light through the pouch material in the form of a curved or straight line greater than 2 mm in length shall be evidence of the presence of stress cracks. Observation of light through the pouch material in the form of a curved or straight line 2 mm in length or smaller or of a single pinpoint shall be considered a pinhole. Observation of ten or more pinholes per pouch shall be evidence of material degradation.

B. Methods of inspection.

(1) 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, Standard Test Method for Seal Strength of Flexible Barrier Materials. The lot size shall be expressed in pouches. The sample unit shall be one pouch. 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 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 unit shall be one pouch. The sample size shall be the number of pouches indicated by inspection level S-1. For the closure seal on preformed pouches, three adjacent specimens shall be cut from the closure seal of each pouch in the sample. For the form-fill-seal pouches, three adjacent specimens shall be cut from each side and each end of each pouch in the

sample. The average seal strength of any side, end or closure shall be calculated by averaging the three specimens cut from that side, end or 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 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 lot size shall be expressed in pouches. The sample unit shall be one pouch. 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 classified as a major defect and shall be cause for rejection of the lot.

C. Packing.

(1) Shipping container and marking examination. The filled and sealed shipping containers shall be examined for the defects listed in table III. The lot size shall be expressed in shipping containers. The sample unit shall be one shipping container fully packed. Utilizing the single sampling plans indicated in ANSI/ASQ Z1.4, 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

Unless otherwise specified, the issues of these documents are those active on the date of the solicitation or contract.

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) www.asq.org

ANSI/ASQ Z1.4	Sampling Procedures and Tables for Inspection by Attributes

ASTM INTERNATIONAL www.astm.org

B 479	Standard Specification for Annealed Aluminum and Aluminum-Alloyed Foil For Flexible Barrier, Food Contact and Other Applications
D 1238	Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer
D 1505	Standard Test Method for Density of Plastics by Density Gradient Technique
D 1974	Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
D 2103	Standard Specification for Polyethylene Film and Sheeting

D 4727/D 4727M	Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes
D 5118/D 5118M	Standard Practice for Fabrication of Fiberboard Shipping Boxes
F 88	Standard Test Method for Seal Strength of Flexible Barrier Materials

AOAC INTERNATIONAL www.aoac.org

Official Methods of Analysis (OMA) of AOAC International

PKG & QAP
A-A-20298B
25 September 2009
SUPERSEDING
A-A-20298A
14 September 2006

For DSCP Website Posting

RDNS-CFF 23 April 2010

TO: DSCP-FTRE

SUBJECT: ES10-072 (DSCP-SS-10-31160); Request for document change to Packaging Requirements and Quality Assurance Provisions for A-A-20298B, Beef and Turkey Snacks, Cured; to use commercial packaging for Turkey Nuggets for use in MRE™ 31; A-A-20298B, Beef and Turkey Snacks, Cured and Packaging Requirements and Quality Assurance Provisions;

1. A contractor requests a change to the current specification, PKG & QAP for A-A-20298B, to allow for the ability to buy commercially vacuum packaged turkey nuggets (minimum of 43 grams) and package that item in a barrier pouch. The contractor would obtain from their subcontractor vacuum packages at the required weight.

2. This contractor is unable to buy this ready-to-eat meat item in bulk and package it because it would require additional micro-biological testing at the plant level that is not currently required of a retort facility.

3. Natick concurs with the contractor's request for a change to the current specification, PKG & QAP A-A-20298B, to allow for the ability to buy commercially vacuum packaged turkey nuggets (minimum of 43 grams) and package in a barrier pouch.

4. Natick submits the following change to Packaging Requirements and Quality Assurance Provisions for A-A-20298B, Beef and Turkey Snacks, Cured for all current, pending and future procurements until the document is formally amended or revised.

a. D-1, A. Packaging., line 8, after "packaged", insert "with or"

5. The Service reps were contacted and their replies were:
Army concurs with Natick.
Marines concur with Natick.
Navy concurs with Natick
Air Force concurs with Natick

6. Attached is Change 01, Packaging Requirements and Quality Assurance Provisions for A-A-20298B, Beef and Turkey Snacks, Cured dated 23 April 2010 with changes highlighted.