SECTION C

The Meal, Ready-to-Eat (MRE) provides an operational ration for the individual.

C-1 ITEM DESCRIPTION

ACR-M-037, MEAL, READY-TO-EAT (MRE), ASSEMBLY REQUIREMENTS

C-2 ASSEMBLY REQUIREMENTS

A. Components. The components are specified in table I.

TABLE I. Components

Component	Reference
Entrées	
Asian Style Beef Strips with Vegetables	PCR-A-005
Beef Patty, Grilled	PCR-B-029A
Jalapeno Pepper Jack	Flavor 2
Beef Ravioli in Meat Sauce	PCR-B-021A
Beef Shredded, in Barbecue Sauce	PCR-B-057
Beef Stew	PCR-B-020A
Beef Taco	PCR-B-054
Brisket Entrée (Gravy with Seasoned Beef Brisket Slices)	PCR-B-050
Cheese Tortellini in Tomato Sauce	PCR-C-020A
Chicken, Egg Noodles, and Vegetables, in Sauce	PCR-C-021A
Chicken Burrito Bowl	PCR-C-088
Chicken Chunks, White, Cooked, Canned or in Flexible Pouches, 5 oz. Pouch	A-A-20352B Type V
Chicken Pesto Pasta	PCR-C-069
Chili and Macaroni	PCR-C-027A
Chili with Beans	PCR-C-062A
Creamy Spinach Fettuccine (Egg Noodles, Spinach and Mushrooms in a Cream Sauce)	PCR-C-087
Elbow Macaroni in Tomato Sauce	PCR-E-019
Hash Brown Potatoes with Bacon, Peppers and Onions	PCR-H-012A
Meatballs in Marinara Sauce	PCR-M-015
Mexican Style Chicken Stew	PCR-M-016
Pork Sausage Patty, Maple Flavored	PCR-P-045
Southwest Style Beef and Black Beans with Sauce	PCR-S-018
Spaghetti with Beef and Sauce	PCR-S-002

TABLE I. Components - Continued

Component	Reference
Tuna, Flexible Pouch, Chunk	A-A-20155D, Type B, Form I
Light, Water	Color a, Packing Media 1
Lemon Pepper, Regular (no more than 1.5 percent salt)	Flavor 1, Salt/Sodium Level (a)
Vegetable Crumbles with Pasta in Taco Style Sauce	PCR-V-010
Starches and Soups	
Black Beans in a Seasoned Sauce	PCR-B-056
Cornbread	PCR-C-075
Granola	PCR-G-003A
With Milk and Blueberries	Type I
Potatoes Au Gratin	PCR-P-048
Potatoes, Mashed	PCR-P-011A
Garlic	Flavor II
Santa Fe Style Rice and Beans	PCR-S-019
Snack Bread, Fortified	PCR-S-009D
Wheat Snack Bread, Single Pack	Type I, Style A
Italian Bread Sticks, Single Pack	Type IV, Style A
Multigrain Snack Bread, Single Pack	Type V, Style A
White Wheat Snack Bread, Single Pack	Type VI, Style A
Tortillas	PCR-T-008A
Plain	Flavor 1
Chipotle	Flavor 2
Fruits	
Apple Pieces in Spiced Sauce	PCR-A-001B
Cobbler	PCR-C-058A
Cherry Blueberry	Flavor 1
Fruits, Infused and Dried	A-A-20299C
Sliced Cranberries, Not Fortified	Type VII, Fortification a
Whole Raisins, Not Fortified	Type IX, Fortification a
Fruits, Wet Pack	PCR-F-002C
Pears, Sweetened, Sliced or Diced	Type IV
Mixed Fruit, Sweetened	Type V
Applesauce, with Raspberry Puree, Sweetened, Reg.	Type VI
Applesauce, Carbohydrate Enhanced, Sweetened, Reg.	Type VII
Applesauce, with Mango and Peach Puree, Sweetened, Reg.	Type VIII

TABLE I. Components - Continued

Component	Reference
Desserts and Snacks	
Meat and Poultry Snacks, Cured	A-A-20298C
Beef, Moist Cured/Kippered, Chopped and Formed	Variety A, Type II, Style a
Strips, Smoked	Class 1, Flavor (a)
Beef, Fermented, Chopped and Formed	Variety A, Type IV, Style a
Sticks, Teriyaki	Class 2, Flavor (b)
Cakes, Brownies, Muffin Tops and Filled Cakes	PCR-C-007F
Pound Cakes	Type I
Vanilla, *Trans* Fat Free	Flavor 1, Style 2
Lemon Poppy Seed, *Trans* Fat Free	Flavor 6, Style 2
Spice, *Trans* Fat Free	Flavor 7, Style 2
Carrot, *Trans* Fat Free	Flavor 10, Style 2
Marble, *Trans* Fat Free	Flavor 11, Style 2
Applesauce, *Trans* Fat Free	Flavor 12, Style 2
Muffin Tops	Type III
Chocolate Banana Nut, *Trans* Fat Free	Flavor 1, Style 2
Maple, *Trans* Fat Free	Flavor 2, Style 2
Cheese Spread, Cheddar, Fortified	PCR-C-039A
Plain	Type I
With Jalapeno Peppers	Type II
With Bacon	Type III
Cookies, Regular, Individual Serving Package	A-A-20295D, Type I, Class 1
Crisp	Bake Type a
~~Sugar, Patriotic~~	~~Style D, Shape (b)~~
Oatmeal, Plain	Style I, Flavor 1
Oatmeal, Chocolate Chunk	Style I, Flavor 6
Chocolate Chip, Plain	Style J, Flavor 1
Crackers, Fortified	PCR-C-037A
Plain	Type I
Vegetable	Type II
Dessert Powder, Pudding, Regular	A-A-20344A, Type I
Instant, Nonfat Dry Milk	Preparation Method C, Style 1
Vanilla	Flavor a
Chocolate	Flavor b

TABLE I. Components - Continued

Component	Reference
Filled Bakery Item	MIL-DTL-32221B
Filled French Toast	Type I
Cinnamon Bun	Type II
Apple Turnover	Type III
First Strike Bars	PCR-F-001
Chocolate, Regular	Flavor I, Style A
Apple-Cinnamon, Regular	Flavor II, Style A
Cran-Raspberry, Regular	Flavor III, Style A
Jelly, Fruit, Standardized, Single, Regular	A-A-20078D, Type I, Style 1
U.S. Grade A	Finished Product Quality a
Apple	Kind A
Grape	Kind M
Nut and Fruit Mix	PCR-N-003A
Nuts and Raisins with Pan Coated Chocolate Disks	Type II
Nut Butters and Nut Spreads	A-A-20328B
Regular, Stabilized	Class A, Type a
Fortified, Salted	Fortification 2, Seasoning (a)
Conventional	Agricultural Practices (1)
Peanut Butter, Smooth	Style I, Texture 1
Peanut Butter, Chunky/Crunchy	Style I, Texture 3
Peanut Spread, Smooth, Chocolate	Style II, Texture 1, Flavor 2
Nuts, Shelled, Roasted	A-A-20164D
Peanuts, Virginia or Runner Type, Dry Roasted, Salted	Type V, Style A
Cashews, Halves (Splits), Flavored (Jalapeno)	Type VI, Size 2, Style C
Almonds (Unblanched), Flavored (Smoked)	Type IX, Style C
Preserves (or Jams), Fruit	A-A-20079D, Type I
U.S. Grade A	Finished Product Quality a
Single Fruit, Blackberry, Regular	Group I, Flavor A, Style 1
Single Fruit, Strawberry, Regular	Group I, Flavor Q, Style 1
Trail Mix, Recovery	PCR-T-014

TABLE I. Components - Continued

Component	Reference
Snack Foods	A-A-20195D
Pretzels, Sticks, Plain, Salted	Type II, Style C, Flavor 1
Pretzels, Nuggets, Honey Mustard and Onion	Type II, Style E, Flavor 2
Filled Pretzels, Cheddar Cheese	Type II, Style F, Flavor 1
Baked Snack Crackers, Cheddar Cheese and Hot and Spicy Cheese	Type V, Flavor 1 and 2
Toasted Corn Kernels, Plain, Salted and Barbecue	Type VI, Flavor 1 and 2
Cheese Filled Crackers, Cheddar Cheese and Pepperoni Pizza	Type VII, Flavor 1 and 2
Toaster Pastries, Regular, Not fortified	A-A-20211C, Type I, Fort. b
Rectangular, Enriched Wheat Flour	Shape i, Grain Composition (1)
Single Serving Packet	Servings (a)
Frosted Brown Sugar Cinnamon, Without Sprinkles	Style B, Flavor 3, Frosting (B)
Frosted Chocolate Chip, With Swirled or Drizzled Icing	Style B, Flavor 12, Frosting (C)
Candy	
Candy and Chocolate Confections	A-A-20177E
Toffee, Chocolate Flavored, Roll	Type II, Style A
Pan Coated Candy	Type VI
Disks, Milk Chocolate, Plain	Style A, Flavor 1
Disks, Fruit Flavored, Original	Style A, Flavor 2, Flavor Style a
Disks, Fruit Flavored, Berry	Style A, Flavor 2, Flavor Style b
Disks, Fruit Flavored, Sour	Style A, Flavor 2, Flavor Style d
Disks, Peanut Butter, Plain	Style A, Flavor 4
Oval/Round, Milk Chocolate with Peanuts	Style B, Flavor 1
Licorice Style Candy, Bite Size, Cherry	Type X, Shape B, Flavor 1
Mint Candy, Rings, Peppermint	Type XI, Style B, Flavor 2

TABLE I. Components - Continued

Component	Reference
Beverages	
Beverage Bases (Powdered)	A-A-20098E
Sweetened with Non-nutritive Sweetener, Lap or Fin Seal Pouch	Type III, Design D
Fortified with Ascorbic Acid and Calcium	Formulation h
Orange	Flavor 1
Beverage Powder, Carbohydrate Electrolyte, Flat Pouch	PCR-B-013A, Design A
Fruit Punch	Flavor I
Grape	Flavor II
Lemon-Lime	Flavor III
Orange	Flavor IV
Beverage Powder, Carbohydrate, Small Flat Pouch	PCR-B-055, Design E
Fortified with Ascorbic Acid and Enhanced with Maltodextrin	Formulation a
Lemon-Lime	Flavor 3
Orange	Flavor 4
Tropical Punch	Flavor 5
Chocolate Protein Drink Powder	PCR-C-082A
Cocoa Beverage Powder	A-A-20189C
Sugar Sweetened, without Marshmallows	Type I, Style B
Flat Interlocking Closure Pouch	Design B
Milk Chocolate	Flavor A
Chocolate Hazelnut	Flavor F
Drink Mixes, Coffee (Unflavored and Flavored)	A-A-20336B
Flavored Instant Cappuccino, Regular	Type V, Style A
Flat Interlocking Closure Pouch	Design B
French Vanilla	Flavor 1
Mocha	Flavor 2
Irish Cream	Flavor 4

TABLE I. Components - Continued

Component	Reference
Other Items	
Bag, Hot Beverage	MIL-PRF-32176
Barbecue Sauce	A-A-20335B
Plain/Regular, without Fruit Purees	Flavor I, Type B
Fork, Knife, and Spoon, Picnic (Plastic)	A-A-3109B
High Impact, Spoon, MRE, 7-Inch (Brown)	Type IV, Item 13
Hot Sauce	A-A-20097F
Extra Hot 4x	Type II
Chili and Lime	Type VII
Buffalo Style	Type IX
Catsup (Ketchup, Catchup)	A-A-20346B
Regular (Plain)	Flavor I
Mayonnaise, Salad Dressing, and Tartar Sauce	A-A-20140D
Mayonnaise, Fat Free	Type I, Style C
Mustard, Prepared	A-A-20036D
Yellow (Salad Style)	Type I
Paperboard Insert Card	MIL-PRF-44073G
Paperboard Sleeve	MIL-PRF-44073G
Ration Supplement, Flameless Ration Heater (FRH)	MIL-R-44398B
Spices and Spice Blends	A-A-20001B
Spices, Pepper, Red, Crushed	Type I, Class Z, Form 3
Syrup	A-A-20124D
Table	Type IV
Regular Calorie, Imitation Maple	Style 1, Flavor A

B. Accessory components. Accessory components are specified in table II.

TABLE II. Accessory Components

Component	Reference	Acc. Pack
Chewing Gum, Tablet, Regular	A-A-20175E, Type I, Size B	All
Without Caffeine	Style (1)	
With Xylitol Sweetener	Class 3	
Peppermint or Cinnamon 1/	Flavor a or c	
Hand Cleaner (towelette)	A-A-461B	All
Unscented, Water-based	Type II	
Matches, Safety	A-A-59489B	A
Paper, 20 Splint Book	Type I, Class B	
Salt, Table, Iodized, 4 Grams	NaCl Monograph	All
Toilet Tissue, Institutional	A-A-59594A, Style II	All
Folded, One Ply, Perforated	Type A, Class 1, Sheet Size b	
Coffee, Soluble	A-A-20184C	A, C
Spray Dried, Agglomerated	Type II	
or Freeze Dried, Regular	or Type III, Style A	
Creamer, Non-Dairy, Dry	A-A-20043C	A, C
Regular, Original	Style I, Flavor A	
Sugar, Refined, White and Sugar Brown	A-A-20135D	A
White (Refined)	Type I,	
Granulated (fine or extra fine)	Style A	
1/7 Ounce		
Beverage Bases (Powdered) 1/	A-A-20098E	B
Sweetened with Non-Nutritive	Type III	
Sweetener, Lap or Fin Seal Pouch	Design D	
Lemonade, Not fortified	Flavor 8, Formulation a	
Raspberry, Not fortified	Flavor 13, Formulation a	
Cranberry Grape, Not fortified	Flavor 22, Formulation a	
Sugar Substitutes, Non-Carbohydrate	A-A-20178C	C
Sucralose, Granular	Type IV, Style A	
Envelopes/Packets	Package 1	

1/ Flavors shall be procured in equal quantities and assembled in a distribution which provides the greatest variation.

C. Contents. The contents of each meal are specified in table III. Refer to table I for full citation and document number of components.

TABLE III. Contents

Menu #1 Chili with Beans Cheese Spread, Cheddar, Plain Crackers, Vegetable Cornbread Snack Food, Cheese Filled 1/ Beverage Powder, Carbohydrate, Fortified 1/ Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve	Menu #2 Beef Shredded in Barbecue Sauce Black Beans in a Seasoned Sauce Cheese Spread, Cheddar, with Jalapeno Peppers Tortillas, Plain Cookies 1/ Beverage Powder, Carbohydrate, Fortified 1/ Barbecue Sauce Accessory Packet C Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve Paperboard Insert Card (as applicable)
Menu #3 Chicken, Egg Noodles, and Vegetables, in Sauce Fruits, Wet Pack 1/ Crackers, Plain Peanut Butter, Smooth Jelly/Jam 1/ Candy III 1/ Beverage Powder, Carbohydrate, Fortified 1/ Hot Sauce, Extra Hot Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve Paperboard Insert Card (as applicable)	Menu #4 Spaghetti with Beef and Sauce Toaster Pastries 1/ Peanut Butter, Smooth Snack Bread, Multigrain Fruits, Infused and Dried 1/ Cocoa Beverage Powder, Milk Chocolate Jelly/Jam 1/ Accessory Packet B Spoon Flameless Ration Heater Paperboard Sleeve

TABLE III. Contents - Continued

Menu #5	Menu #6
Chicken Chunks First Strike Bar 1/ Cheese Spread, Cheddar, Plain Tortillas, Plain Trail Mix, Recovery Candy II 1/ Beverage Powder, Carbohydrate Electrolyte 1/ Hot Sauce, Buffalo Style Accessory Packet B Spoon Paperboard Insert Card (as applicable)	Beef Taco Santa Fe Style Rice and Beans Cheese Spread, Cheddar, Plain Tortillas, Plain Nut and Fruit Mix, Nuts and Raisins with Pan Coated Chocolate Disks Beverage Bases, Sweetened with Non-nutritive Sweetener, Orange, Fortified Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve Paperboard Insert Card (as applicable)
Menu #7	**Menu #8**
Brisket Entrée Potatoes Au Gratin Fruits, Infused and Dried 1/ Peanut Butter, Smooth Snack Bread 1/ Jelly/Jam 1/ Candy I 1/ Drink Mix, Flavored Instant Cappuccino, Irish Cream Accessory Packet B Spoon Flameless Ration Heater Paperboard Sleeve Paperboard Insert Card (as applicable)	Meatballs in Marinara Sauce Potatoes, Mashed, Garlic Cookies 1/ Cheese Spread, Cheddar, with Jalapeno Peppers Snack Bread, Italian Bread Sticks Meat Snacks 1/ Beverage Powder, Carbohydrate, Fortified 1/ Accessory Packet C Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve Paperboard Insert Card (as applicable)

TABLE III. Contents - Continued

Menu #9	Menu #10
Beef Stew	Chili and Macaroni
Cake, Pound, *Trans* Fat Free 1/	Cake, Pound, *Trans* Fat Free 1/
Peanut Butter, Smooth	Cheese Spread, Cheddar, with Jalapeno Peppers
Jelly/Jam 1/	Crackers, Vegetable
Snack Bread, Multigrain	Meat Snacks 1/
Snack Food, Pretzels 1/	Candy I 1/
Beverage Powder, Carbohydrate Electrolyte 1/	Beverage Powder, Carbohydrate Electrolyte 1/
Hot Sauce, Extra Hot	Spice, Red Pepper, Crushed
Accessory Packet A	Accessory Packet A
Spoon	Spoon
Flameless Ration Heater	Flameless Ration Heater
Bag, Hot Beverage	Bag, Hot Beverage
Paperboard Sleeve	Paperboard Sleeve
Menu #11 Vegetarian	**Menu #12 Vegetarian**
Vegetable Crumbles with Pasta in Taco Style Sauce	Elbow Macaroni in Tomato Sauce
Fruits, Wet Pack 1/	Fruits, Wet Pack 1/
First Strike Bar 1/	Cheese Spread, Cheddar, Plain
Peanut Butter, Chunky/Crunchy	Snack Bread 1/
Crackers, Plain	Candy III 1/
Nuts 1/	Chocolate Protein Drink Powder
Drink Mix, Flavored Instant Cappuccino, French Vanilla	Hot Sauce, Extra Hot
Hot Sauce, Chili and Lime	Accessory Packet A
Accessory Packet B	Spoon
Spoon	Flameless Ration Heater
Flameless Ration Heater	Bag, Hot Beverage
Paperboard Sleeve	Paperboard Sleeve
Paperboard Insert Card (as applicable)	Paperboard Insert Card (as applicable)

TABLE III. Contents – Continued

Menu #13 Vegetarian Cheese Tortellini in Tomato Sauce Dessert Powder, Pudding 1/ Peanut Spread, Smooth, Chocolate Crackers, Plain Trail Mix, Recovery Beverage Powder, Carbohydrate Electrolyte 1/ Hot Sauce, Extra Hot Accessory Packet C Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve	Menu #14 Vegetarian Creamy Spinach Fettuccine First Strike Bar 1/ Peanut Butter, Smooth Crackers, Plain Snack Food, Pretzels 1/ Chocolate Protein Drink Powder Hot Sauce, Extra Hot Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve
Menu #15 Mexican Style Chicken Stew Fruits, Wet Pack 1/ Snack Food, Cheese Filled 1/ Cheese Spread, Cheddar, with Jalapeno Peppers Crackers, Plain First Strike Bar 1/ Cocoa Beverage Powder, Chocolate Hazelnut Spice, Red Pepper, Crushed Accessory Packet B Spoon Flameless Ration Heater Paperboard Sleeve Paperboard Insert Card (as applicable)	Menu #16 Chicken Burrito Bowl Snack Food, Other 1/ Filled Bakery Item 1/ Tortillas, Plain Cheese Spread, Cheddar, Plain Hot Sauce, Extra Hot Beverage Powder, Carbohydrate, Fortified 1/ Accessory Packet C Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve

TABLE III. Contents – Continued

Menu #17 Pork Sausage Patty, Maple Flavored Muffin Top, Maple, *Trans* Fat Free Peanut Butter, Smooth Crackers, Plain Nuts 1/ Beverage Powder, Carbohydrate Electrolyte 1/ Syrup, Table, Imitation Maple Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve	Menu #18 Beef Ravioli in Meat Sauce Muffin Top, Chocolate Banana Nut, *Trans* Fat Free Cheese Spread, Cheddar, Plain Snack Bread 1/ Meat Snacks 1/ Beverage Powder, Carbohydrate, Fortified 1/ Hot Sauce, Extra Hot Accessory Packet C Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve
Menu #19 Beef Patty, Grilled, Jalapeno Pepper Jack Cobbler, Cherry Blueberry Cookies 1/ Cheese Spread, Cheddar, with Bacon Tortillas, Plain Candy II 1/ Beverage Bases, Sweetened with Non-nutritive Sweetener, Orange, Fortified Ketchup Mustard Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve Paperboard Insert Card (as applicable)	Menu #20 Hash Brown Potatoes with Bacon, Peppers and Onions Granola with Milk and Blueberries Filled Bakery Item 1/ Cheese Spread, Cheddar, Plain Crackers, Plain Nuts 1/ Beverage Bases, Sweetened with Non-nutritive Sweetener, Orange, Fortified Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve

TABLE III. Contents – Continued

Menu #21 Tuna, Lemon Pepper Cake, Pound, *Trans* Fat Free 1/ Cheese Spread, Cheddar, Plain Tortillas, Plain Snack Food, Other 1/ Beverage Powder, Carbohydrate, Fortified 1/ Mayonnaise, Fat Free Accessory Packet B Spoon	Menu #22 Asian Style Beef Strips with Vegetables Fruits, Wet Pack 1/ Peanut Butter, Chunky/Crunchy Jelly/Jam 1/ Snack Bread 1/ Candy III 1/ Cocoa Beverage Powder, Milk Chocolate Accessory Packet B Spoon Flameless Ration Heater Paperboard Sleeve Paperboard Insert Card (as applicable)
Menu #23 Chicken Pesto Pasta Cobbler, Cherry Blueberry Cheese Spread, Cheddar, Jalapeno Snack Bread, Italian Bread Sticks ~~Cookies, Sugar, Patriotic~~ Cookies 1/ Chocolate Protein Drink Powder Accessory Packet A Spoon Flameless Ration Heater Bag, Hot Beverage Paperboard Sleeve Paperboard Insert Card (as applicable)	Menu #24 Southwest Beef and Black Beans with Sauce Apple Pieces in Spiced Sauce Cake, Pound, *Trans* Fat Free 1/ Meat Snacks 1/ Cheese Spread, Cheddar, Plain Tortillas, Chipotle Drink Mix, Flavored Instant Cappuccino, Mocha Accessory Packet B Spoon Flameless Ration Heater Paperboard Sleeve Paperboard Insert Card (as applicable)

1/ Flavors or types, as applicable, shall be procured in equal quantities and assembled in a distribution which provides the greatest variation of flavors and types in accordance with table IV.

TABLE IV. Menu distribution

Item	Menu	Flavor
Beverage Powder, Carbohydrate, Fortified	1, 2, 3, 8, 16,18, 21	Lemon-lime, orange, and tropical punch
Beverage~~s~~ Powder, Carbohydrate Electrolyte	5, 9, 10, 13, 17	Fruit punch, grape, lemon-lime and orange
Cakes, Pound, *Trans* Fat Free	9, 10, 21, 24	Vanilla, lemon poppy seed, spice, carrot, marble, and applesauce
Candy I	7, 10	Chocolate toffee rolls, licorice and mints
Candy II	5, 19	Pan coated candy: plain chocolate disks, peanut butter disks and chocolate with peanuts oval/round
Candy III	3, 12, 22	Original, berry and sour fruit disks
Cookies	2, 8, 19, 23	Oatmeal, chocolate chip, and oatmeal chocolate chunk
Dessert Powder, Pudding	13	Vanilla and chocolate
Filled Bakery Item	16, 20	Filled French toast, cinnamon bun, and apple turnover
First Strike Bars	5, 11, 14, 15	Chocolate, apple-cinnamon, and cran-raspberry
Fruits, Infused and Dried	4, 7	Sliced cranberries and whole raisins
Fruits, Wet Pack	3, 11, 12, 15, 22	Raspberry applesauce, carbohydrate enhanced applesauce, mango and peach applesauce, pears, and mixed fruit
Jams and Jellies	3, 4, 7, 9, 22	Blackberry, strawberry, apple and grape
Meat Snacks	8, 10, 18, 24	Beef strips, smoked and beef sticks, teriyaki
Nuts	11, 17, 20	Dry roasted peanuts, jalapeno cashews, and smoked almonds
Snack Bread	7, 12 18, 22	Wheat and white wheat
Snack Food, Cheese Filled	1, 15	Filled cracker (cheddar cheese, pepperoni pizza) and Filled pretzel (cheddar cheese)
Snack Food, Other	16, 21	Toasted corn kernels (plain salted and barbecue) and Baked snack cracker (Cheddar cheese and hot and spicy cheese)
Snack Food, Pretzels	9, 14	Plain salted sticks and honey mustard and onion nuggets
Toaster Pastries	4	Frosted brown sugar cinnamon and frosted chocolate chip

SECTION D

D-1 PACKAGING

A. Components.

(1) Subassembly/accessory packet pouch. The subassembly/accessory packet pouch shall be a preformed pouch or a form-fill-seal pouch. Dimensions shall be sufficient to contain all components. Seals shall be a minimum 1/8 inch wide. A tear nick, notch or serrations shall be provided to facilitate opening the filled and sealed accessory packet. The average seal strength of the pouch seals shall be not less than 3.5 pounds per inch of width and no individual specimen shall have a seal strength of less than 3.0 pounds per inch of width. As an alternative to the seal strength requirement, the filled and sealed packet 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. The pouch shall be made from polymeric film or film combinations with adequate strength and thickness to contain and protect the components. The water vapor transmission rate (WVTR) of the film shall not exceed 6.2 $g/m^2/24hrs$ at 90% RH and 100°F when tested in accordance with ASTM F1249, Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor, ASTM E96/E96M, Standard Test Methods for Water Vapor Transmission of Materials or Method 3030 of MIL-STD-3010, Test Procedures for Packaging Materials and Containers. The exterior color of the packet shall be clear or tan.

(2) Time-temperature indicator (TTI) label. The TTI label shall be a 3/4 inch square, bull's-eye type, pressure sensitive adhesive label. The TTI label shall have an activation energy (E_a) of 24–30 kcal/mole, be protected from ultraviolet radiation, and have a shelf life of 1100 days at 80°F as pivot point.

(3) Meal bag. The meal bag shall be made from food grade, low density polyethylene (LDPE) tubing or tubing made from a blend of food grade, low density polyethylene (LDPE) and linear low density polyethylene (LLDPE). Additives may be used in order to improve sealability, peelability, tear resistance or other attributes provided all additives are approved for food contact. Polyethylene shall have a minimum thickness of 0.010 inch. Inside dimensions of the bag shall not exceed 8-1/2 inches by 13-1/4 inches. The color of the bag shall conform to number 20219, 30219, 30227, 30279, 30313, 30324 or 30450 of FED-STD-595, Colors Used in Government Procurement. One seal shall be a minimum 1/8 inch wide, continuous, peelable seal that forms a hermetic closure. The seal shall be designed with an inverted "V" shaped peel indicator along the seal path. There shall be a minimum of 1/2 inch between the apex of the "V" and the end of the bag. The seal strength of the peelable seal

shall be not less than 4 pounds per inch of width and shall be not greater than 10 pounds per inch of width. Alternative bag construction, bag materials, and material thicknesses may be used provided that the alternative method can be demonstrated to meet or exceed the requirements of this document, military abuse testing and controlled pest testing. Samples may be submitted to the contracting officer to be qualified on a case by case basis.

(4) Paperboard sleeve. The paperboard sleeve shall be constructed in accordance with figure 6 of MIL-PRF-44073. When folded along the score lines located at the bottom of the sleeve, an open-ended carton shall result. Each sleeve shall be securely sealed along the glue joint. The seal shall have a bond strength greater than the fiber tear of the paperboard. The color of the sleeve shall be natural kraft, tan or dull gray. The paperboard sleeve shall contain food product information in accordance with Section D-2 of the appropriate food product document(s).

(5) Paperboard insert card. The paperboard insert card shall not exceed 4 inches in width by 6 inches in length. The color of the insert card shall be natural kraft, tan or dull gray. The paperboard insert card shall contain food product information in accordance with Section D-2 of the appropriate food product document(s).

B. Assembly.

(1) Subassembly/accessory packet assembly. One of each applicable component as described in table II shall be inserted in an accessory packet pouch. If a subassembly is used, additional components may also be inserted in the packet. For a preformed pouch, components shall be inserted in the pouch and the pouch shall be closed with a heat seal not less than 1/8 inch wide. For a form-fill-seal pouch, components shall be placed in the body and the cover applied by heat sealing with a seal not less than 1/8 inch wide. The closure seal shall be free of foldover wrinkles or entrapped matter that reduces the effective seal width to less than 1/16 inch. The average seal strength of the pouch seals shall be not less than 3.5 pounds per inch of width and no individual specimen shall have a seal strength of less than 3.0 pounds per inch of width. As an alternative to the seal strength requirement, the filled and sealed packet 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.

(2) Meal assembly. Each applicable component for each meal as described in table III shall be inserted in a meal bag. The bag shall be closed with a heat seal not less than 1/8 inch wide. The closure seal shall have an average seal strength of not less than 4 pounds per inch of width with no individual specimen test result less than 3 pounds per inch of width. The sealed meal bag shall not show any evidence of foreign odor.

D-2 LABELING

A. Subassembly/accessory packet. The subassembly/accessory packet shall be labeled on one face in permanent dark contrasting color ink with 'A', 'B' or 'C', as applicable. Alternatively, the packet letter may be embossed in the seal of the packet.

B. Meal bag. Each meal bag shall be correctly and legibly labeled on at least one face with permanent ink or other dark contrasting color with the information contained in accordance with Figures 1, 2 or 3, as applicable. The label shall cite the correct Menu number, name of entrée, French translation of entrée name (see table V) and name and address of assembler. Menus 1-4 and 13-16 shall be printed in accordance with Design 1 (Figure 1). Menus 5-8 and 17-20 shall be printed in accordance with Design 2 (Figure 2). Menus 9-12 and 21-24 shall be printed in accordance with Design 3 (Figure 3). The French translation printed on the meal bag, in accordance with the design specified above, shall be as specified in table V.

TABLE V. French Translation of Entrée Name

Entrée Name	French Translation
Asian Style Beef Strips withVegetables	Dés de bœuf aux légumes, à l'asiatique
Beef Patty, Jalapeno Pepper Jack	Steak haché au fromage pimenté
Beef Ravioli in Meat sauce	Ravioli au bœuf, sauce à la viande
Beef Shredded, in Barbecue Sauce	Émincé de bœuf, sauce barbecue
Beef Stew	Ragoût de bœuf
Beef Taco	Taco au bœuf
Brisket Entrée (Gravy with Seasoned Beef Brisket Slices)	Tranches de poitrine de bœuf assaisonné
Cheese Tortellini in Tomato Sauce	Tortellini au fromage, sauce tomate
Chicken, Noodles, and Vegetables, in Sauce	Poulet, nouilles et légumes en sauce
Chicken Burrito Bowl	Burrito de poulet bol
Chicken Chunks, White, Cooked	Dés de poulet
Chicken Pesto Pasta	Poulet et pâtes au pesto
Chili and Macaroni	Chili et Macaroni
Chili with Beans	Chili aux haricots rouges
Creamy Spinach Fettuccine (Egg Noodles, Spinach, and Mushrooms in a Cream Sauce)	Fettucini aux épinards et champignons à la crème
Elbow Macaroni in Tomato Sauce	Coquillettes à la sauce tomate
Hash Brown Potatoes with Bacon, Peppers and Onions	Potée de pommes de terres râpées au bacon, oignons et poivrons
Meatballs in Marinara Sauce	Boulettes de viande, sauce Marinara

Mexican Style Chicken Stew	Ragoût de poulet à la mexicaine

TABLE V. French Translation of Entrée Name - Continued

Entrée Name	French Translation
Pork Sausage Patty, Maple Flavored	Saucisse de porc, saveur d'érable
Southwest Beef and Black Beans	Bœuf à la façon “Southwest” aux haricots noirs
Spaghetti with Beef and Sauce	Spaghetti en sauce à la viande de bœuf
Tuna, Chunk, Light, Water Packed, Lemon Pepper	Miettes de thon au naturel au poivre citronné
Vegetable Crumbles with Pasta in Taco Style Sauce	Crumbles de legumes et pâtes, sauce façon Taco

D-3 PACKING

A. Packing. Twelve meals shall be packed in a fiberboard box. Case “A” shall contain meals 1 through 12, and case “B” shall contain meals 13 through 24. The fiberboard box shall conform to RSC-L of ASTM D5118/D5118M, Standard Practice for Fabrication of Fiberboard Shipping Boxes and grade V2s of ASTM D4727/D4727M, Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes, except the requirements for dry burst strength shall be minimum 425 psi, the requirement for wet burst strength shall be minimum 250 psi and the laminated board thickness shall be 0.069 inches. [US Army Research, Development and Engineering Command; Natick Soldier Research, Development, and Engineering Center found that solid fiberboard shipping container material consisting of two outer facings of 90 pound wet strength linerboard and an inner ply of 69 pound linerboard met the performance criteria of this specification.] The box liner shall be a full inside width box liner fabricated from grade W5c fiberboard in accordance with ASTM D5118/D5118M, except the terminal ends of the liner shall overlap a minimum of 2 inches and no fastening of the overlap is required. The box shall be closed in accordance with closure method 2A1 of ASTM D1974/D1974M, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes; except the gap between the outer flaps shall be not more the 3/4 inch wide. Each box shall be reinforced with two girthwise nonmetallic straps. The inside dimensions of the box shall be 15-5/8 inches in length, 9-1/8 inches in width and 9-9/16 inches in depth.

D-4 UNITIZATION

A. Unit loads. Forty-eight boxes shall be arranged in unit loads in accordance with type I, class C of DLA Troop Support Form 3507, Loads, Unit: Preparation of Semiperishable Subsistence Items. Each load shall have 24 “A” cases and 24 “B” cases. At least two boxes in each tier shall be oriented to display the TTI label.

D-5 MARKING

A. Shipping containers. Shipping containers shall be marked in accordance with DLA Troop Support Form 3556, Marking Instructions for Boxes, Sacks, and Unit Loads of Perishable and Semiperishable Subsistence and as specified in the contract with the following exceptions:

(1) Identification markings normally placed on an end of the shipping container shall read from top to bottom, left to right, when the shipping container is rotated from its upright position onto its side for palletization. The major flaps of the shipping container closure immediately to the right of the marked end of the shipping container shall bear the following marking:

Contract data and other required markings
Date of pack
Lot number
Case A or B, as applicable
U.S. GOVERNMENT PROPERTY – COMMERCIAL RESALE IS UNLAWFUL
NOTE: WATER ACTIVATED Flameless Ration Heater, NSN 8970-01-321-9153, supplied in each MRE bag

(2) Time Temperature Indicator label shall be centrally positioned on the panel. A minimum distance (quiet zone) of 1/4 inch from the nearest identification marking shall be maintained.

(3) One side panel of the shipping container shall be marked “MEAL, READY-TO-EAT, INDIVIDUAL” in letters not less than 1-1/4 inches high with the French translation “(Repas, Prêt-à-Consommer, Individuel)” marked underneath in letters not less than 1 inch. Underneath the ration nomenclature, in letters not less than 1/2 inch, the shipping container shall be marked “DO NOT ROUGH HANDLE WHEN FROZEN (0°F or below)”.

B. Unit loads. Unit loads shall be marked in accordance with DLA Troop Support Form 3556. In addition, each unit load shall be provided with a Material Safety Data Sheet (MSDS), in accordance with MIL-R-44398. The MSDS shall be packaged and attached to one side of the unit load. A copy of the MSDS shall be included with the shipping papers and a copy shall also be placed in the vehicle manifest.

FIGURE 1. Example of Design 1 of Meal Bag Graphics

FIGURE 2. Example of Design 2 of Meal Bag Graphics

FIGURE 3. Example of Design 3 of Meal Bag Graphics

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. Conformance inspection. Conformance inspection shall include the examinations/tests and the methods of inspection cited in this section.

C. Packaging examination.

(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.

Requirement	Requirement paragraph	Test procedure
Thickness of meal bag	D-1,A(3)	ASTM D2103 1/
Color of meal bag and subassembly/accessory packet	D-1,A(1) and D-1,A(3)	Visual evaluation and FED-STD-595, as applicable 2/
Water vapor transmission rate	D-1,A(1)	ASTM F1249 3/, ASTM E96/E96M 4/ or Method 3030 of MIL-STD-3010 5/

1/ Standard Specification for Polyethylene Film and Sheeting

2/ Colors Used in Government Procurement

3/ Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor

4/ Standard Test Methods for Water Vapor Transmission of Materials

5/ Test Procedures for Packaging Materials and Containers

(2) Subassembly/accessory packet examination. The filled and sealed packets shall be examined for the defects listed in table VI. The lot size shall be expressed in packets. The sample unit shall be one packet. The inspection level shall be S-4 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5 for major defects and 4.0 for minor defects.

TABLE VI. Subassembly/accessory packet defects

Category		Defect
Major	Minor	
101		Not clean. 1/
	201	Seal width less than 1/16 inch. 2/
	202	Tear nick or notch or serrations missing or does not facilitate opening.
	203	Tear or hole or open seal.
	204	Label missing or incorrect or illegible.
	205	Pouch not sealed on four sides.

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

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

b. Localized dried product which affects less than 1/8 of the total surface area of one pouch face, or an aggregate of scattered dried product which affects less than 1/4 of the total surface area of one pouch face.

2/ An effective seal is defined as any uncontaminated, fusion bonded, continuous path, minimum 1/16 inch wide, producing a hermetically sealed pouch.

(3) Subassembly/accessory packet contents examination. The filled and sealed packets shall be examined for the defects listed in table VII (this examination may be performed on the preformed packets after filling and prior to sealing). The lot size shall be expressed in packets. The sample unit shall be one packet, open or sealed. The inspection level shall be S-4 and the AQL, expressed in terms of defects per hundred units, shall be 1.5 for major defects and 4.0 for minor defects.

TABLE VII. Subassembly/accessory packet contents defects

Category		Defect
Major	Minor	
101		Component not clean. 1/
	201	Missing or unserviceable component.

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

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

b. Localized dried product which affects less than 1/8 of the total surface area of one package face, or an aggregate of scattered dried product which affects less than 1/4 of the total surface area of one package face.

(4) Assembled meal bag examination. The filled and sealed meal bags shall be inspected for the defects listed in table VIII. The lot size shall be expressed in bags. The sample unit shall be one bag. The inspection level shall be S-4 and the AQL, expressed in terms of defects per hundred units, shall be 2.5 for major defects and 4.0 for minor defects. A minimum of 50 samples shall be examined for critical defects. The finding of any critical defect shall be cause for rejection of the lot. The inspection sample shall contain a proportionate amount of each of the meals.

TABLE VIII. Assembled meal bag defects

Category			Defect
Critical	Major	Minor	
1			Tear or hole or open seal in cheese spread.
2			Swollen cheese spread pouch or swollen pouch of thermostabilized item.
3			Tear or hole or puncture in thermostabilized pouch.
	101		Menu component missing or incorrect assortment for menu. 1/
	102		Meal bag not clean or outer packaging of its contents not clean. 2/
	103		Foreign odor.
	104		Labeling missing or incorrect or illegible.
	105		Swollen peanut butter or jelly or jam pouch.
	106		Tear or hole or open seal in component packages.
	107		Crushed or broken component. 3/
	108		Broken spoon.
	109		Chocolate toffee rolls or mints not packaged in barrier pouch.
	110		Bond strength of paperboard sleeve glue joint is not greater than fiber strength of paperboard sleeve. 4/
	111		Dimensions of paperboard sleeve not as specified. 4
		201	Tear or hole or open seal or split in meal bag.
		202	Tear or hole or open seal in subassembly/accessory packet.

TABLE VIII. Assembled meal bag defects - Continued

Category			Defect
Critical	Major	Minor	
		203	Inverted "V" shaped peel indicator missing or not located as specified.
		204	Labeling graphics of meal bag not correct.
		205	Color of paperboard sleeve or paperboard insert card not as specified. 4/
		206	Paperboard sleeve does not form an open-ended carton when folded along the bottom score lines. 4/
		207	Dimensions of paperboard insert card not as specified. 4/

1/ A missing entrée shall be cause for rejection of the lot.

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

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

b. Localized dried product which affects less than 1/8 of the total surface area of one pouch face, or an aggregate of scattered dried product which affects less than 1/4 of the total surface area of one pouch face.

3/ For definition of crushed or broken, refer to applicable ration component document.

4/ A CoC may be accepted as evidence of conformance.

D. Methods of inspection.

(1) Seal testing. The pouch seals shall be tested for seal strength or internal pressure resistance as required in a, b, c, or d, as applicable.

a. Unfilled preformed subassembly/accessory packet pouch. The seals of the unfilled preformed pouches for the subassembly/accessory packet shall be tested for seal strength in accordance with ASTM F88/F88M, 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 inspection shall be level S-1 and the AQL, expressed in defects per hundred units, shall be 10.0. Three 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 results of the three specimens cut from that side. Any individual test specimen failing to meet a seal strength of 3 pounds per inch of width shall be scored as a major defect. Any average seal strength of less than 3.5 pounds per inch of width shall be cause for rejection of the lot. Alternatively, 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 end 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 VI, 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.

b. Unfilled meal bag. The seals of the unfilled meal bags shall be tested for seal strength in accordance with ASTM F88/F88M. The lot size shall be expressed in bags. The sample unit shall be one bag. The sample size shall be the number of bags indicated by inspection level S-1. Three specimens shall be cut from the sealed end of each bag in the sample. Samples shall not be taken from the inverted "V" peel initiation. Any specimen with a seal strength less than 4 pounds per inch of width or greater than 10 pounds per inch of width shall be classified as a major defect and shall be cause for rejection of the lot.

c. Subassembly/accessory packet pouch closure. The closure seals of the pouches for the subassembly/accessory packet shall be tested for seal strength in accordance with ASTM F88/F88M. The lot size shall be expressed in pouches. The sample unit shall be one pouch. The inspection level shall be S-1 and the AQL, expressed in defects per hundred units, shall be 10.0. 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 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 individual test specimen failing to meet a seal strength of 3 pounds per inch of width shall be scored as a major defect. Any average seal strength of less than 3.5 pounds per inch of width shall be cause for rejection of the lot. Alternatively, 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 end 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 VI, 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.

d. Meal bag closure. The closure seals of the meal bags shall be tested for seal strength in accordance with ASTM F88/F88M. The lot size shall be expressed in bags. The sample unit shall be one bag. The sample size shall be the number of bags indicated by inspection level S-1. Three specimens shall be cut from the closure seal of each bag in the sample. The average seal strength shall be calculated by averaging the three test specimens cut from that seal (the sample unit). Any test specimen result less than 3 pounds per inch of width shall be cause for rejection of the lot. Any average seal strength of less than 4 pounds per inch of width shall be cause for rejection of the lot.

(2) Unfilled meal bag and unfilled preformed subassembly/accessory packet pouch seal certification. A CoC may be accepted as evidence that unfilled bags or pouches conform to the seal strength requirements specified in D-1,A(1) and (3). When deemed necessary by the government inspector, testing of the unfilled preformed pouches for seal strength shall be as specified in E,D(1)a.

E. Packing.

(1) Shipping container and marking examination. The filled and sealed shipping containers shall be examined for the defects listed in table IX. 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 IX. Shipping container and marking defects

Category		Defect
Major	Minor	
101		Marking missing or incorrect or illegible.
102		Outer flaps do not completely meet, leaving an opening greater than 3/4 inch between flap ends.
103		Inadequate workmanship. 1/
104		Missing meal. 2/
105		Not one of each menu specified.
	201	Time-temperature indicator missing or not centrally located on panel.
	202	Time-temperature indicator 1/4-inch quiet zone not maintained.
	203	Meal bag graphics do not coincide with specified design.

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.

2/ Each missing meal is a defect.

(2) Flap closure testing. The lot size shall be expressed in shipping containers. The sample unit shall be one shipping container. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 4.0. The closure of the four outer flaps of the container shall be tested separately. A 90 degree angular bar with each leg approximately 5 inches long by 3 inches wide by 1/8 inch thick shall be used to test the flap closures. Insert one leg of the angular bar full length under the center of one outer flap. Insertion shall be made through the open slot between the outer flaps. Lift the container vertically by the other leg of the bar until the container is suspended. The complete upper surface of the inserted leg shall be in contact with the inner surface of the flap during the lifting and suspension of the container. Complete separation of the adhesive bond of one or more of the outer flaps, showing no evidence of fiber tear, shall be scored as a major defect.

F. Unit load examination. The unit load shall be examined in accordance with the requirements of DLA Troop Support Form 3507. Any nonconformance shall be classified as a major defect.

SECTION J REFERENCE DOCUMENTS

Unless otherwise specified, the applicable version of these documents is that which is active on the date of the solicitation or contract.

DLA Troop Support Forms

Form 3507	Loads, Unit: Preparation of Semiperishable Subsistence Items
Form 3556	Marking Instructions for Boxes, Sacks, and Unit Loads of Perishable and Semiperishable Subsistence

MILITARY SPECIFICATIONS

MIL-PRF-32176	Bag, Hot Beverage
MIL-R-44398B	Ration Supplement, Flameless Ration Heater (FRH)
MIL-STD-3010	Test Procedures for Packaging Materials and Containers
MIL-PRF-44073	Packaging of Food in Flexible Pouches

FEDERAL STANDARDS

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

D1974/D1974M	Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes

D2103	Standard Specification for Polyethylene Film and Sheeting
D4727/D4727M	Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes
D5118/D5118M	Standard Practice for Fabrication of Fiberboard Shipping Boxes
E96/E96M	Standard Test Methods for Water Vapor Transmission of Materials
F88/F88M	Standard Test Method for Seal Strength of Flexible Barrier Materials
F1249	Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor

For DLA Troop Support Website Posting

RDNS-SEC-EM 2 June 2016

TO: Defense Logistics Agency (DLA) - Troop Support – Subsistence DSCP-FTRE

SUBJECT: ES16-038 (DSCP-SS-16-01026); Document change; remove the trans fat free (TFF) Patriotic Sugar Cookie from Menu 23; for use in ACR-M-037, Meal, Ready-to-Eat (MRE), Assembly Requirements

Date received: 16 May 2016
Date due: 14 August 2016
Date replied: 2 June 2016

1. References:

a. Memo dated 9 March 2016, ES16-015 (DSCP-SS-16-00323); Waiver request; Packaging Requirements and Quality Assurance Provisions (PKG&QAP) for Commercial Item Description (CID) A-A-20295D Cookies, Style D, Shape (b), continue to assemble the non-TFF Patriotic Sugar Cookie through March 2016 or recommend a substitution;

b. Memo dated 8 April 2016, ES16-032 (DSCP-SS-16-00843); Technical evaluation request; Change 01 Revised Packaging Requirements and Quality Assurance Provisions (PKG&QAP) A-A-20295C for Commercial Item Description (CID) A-A-20295D Cookies, Style D, Shape (b); evaluate Trans fat free (TFF) Patriotic Sugar Cookie from potential supplier against specification..

2. Natick initiated an Engineering Support case to request the removal of TFF Patriotic Sugar Cookies from ACR-M-037.

3. Vendors have been unable to procure a TFF Patriotic Sugar Cookie for MRE 37 that meets Section C, Appearance, (1), “The patriotic sugar cookies shall have at least three different patriotic shapes in each package”, Section H, Analytical Requirements, “ the trans fat content shall be not greater than 0 grams per serving” as well as Defect 201 “broken or crushed cookie” and the footnote for the defect states the following “For pouches with three or more cookies, more than half of the cookies are broken into three or more pieces”.

4. Based on this information, Natick recommends that the Patriotic Sugar Cookie in Menu 23 be replaced with Cookies (equal quantities of oatmeal, chocolate chip, and oatmeal chocolate chunk). Additional components within Menu 23 include the following: Chicken

Pesto Pasta, Cherry Blueberry Cobbler, Cheese Spread (Jalapeno), Italian Bread Sticks, Chocolate Protein Drink Powder, and Accessory Packet A.

5. The recommended change will not have a negative impact on the nutritional content of Menu 23.

6. Natick submits the following change to subject document for all current, pending, and future procurements until the document is formally amended or revised:

a. Page 3, Section C-2, A, TABLE I, Delete "Sugar, Patriotic, Style D, Shape (b)".

b. Page 14, TABLE III, Menu 23, Delete "Cookies, Sugar, Patriotic" and insert "Cookies 1/"

c. Page 15, TABLE IV, Cookies, Menu, insert "23".