

SECTION C

C-1 ITEM DESCRIPTION

PCR-B-011 BEANS, WESTERN, PACKAGED IN A FLEXIBLE POUCH, SHELF STABLE

Each component is consumed by combat personnel under worldwide environmental extremes as part of an operational ration, and is a source of nutritional intake. It is essential that this item be produced in accordance with good commercial practice to attain high standards of appearance, odor, flavor, and texture so that high levels of troop acceptance are achieved.

C-2 PERFORMANCE REQUIREMENTS

A. Production standard. A sample shall be subjected to first article or product demonstration model inspection as applicable, in accordance with the tests and inspections of Section E of this Performance-based Contract Requirements document.

B. Commercial sterility. The packaged food shall be processed until commercially sterile.

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

D. Appearance.

(1) Red kidney beans. The red kidney beans shall be a dark to reddish brown color.

(2) Pinto beans. The pinto beans shall be a reddish brown color.

(3) Lentils. The lentils shall be a dark to reddish brown color.

(4) Sauce. The sauce shall be a reddish brown color with pieces of tomato and onions, and spices

(5) General. The western beans shall be a mixture of red kidney beans, pinto beans, and lentils in a moderately thick, reddish brown sauce with pieces of tomato and onions, and spices. The western beans shall be free from broken beans, mashed beans, and beans with loose skins. The packaged food shall be free from foreign materials such as but not limited to dirt, insect parts, hair, glass, wood or metal.

E. Odor and flavor.

(1) General. The packaged western beans shall have an odor and flavor characteristic of cooked western-style beans. The sauce shall have a mild pungency with Mexican type seasoning and spices.

(2) Foreign. The packaged food shall be free from foreign odors and flavors such as, but not limited to, burnt, scorched, rancid, sour, or stale.

**SECTION C CONTINUED**

F. Texture.

- (1) Kidney beans. The kidney beans shall be slightly soft to slightly firm.
- (2) Pinto beans. The pinto beans shall be slightly soft to slightly firm.
- (3) Lentils. The lentils shall be slightly soft to slightly firm.
- (4) Sauce. The sauce shall be moderately thick with pieces of tomato and onions.

G. Weight.

- (1) Net weight. The average net weight shall be not less than 5.0 ounces. No individual pouch shall contain less than 4.5 ounces.
- (2) Drained weight. The average drained weight of western beans shall be not less than 3.6 ounces. The drained weight of western beans in an individual pouch shall be not less than 3.4 ounces. The drained weight of the kidney and pinto beans combined in an individual pouch shall be not less than 1.5 ounces.

H. Palatability. The finished product shall be equal to or better than the approved first article when applicable, or other approved model, in palatability and overall appearance.

\* I. Nutrient content.

- (1) Fat content. The fat content shall be not greater than 2.0 percent.
- (2) Salt content. The salt content shall be not greater than 1.3 percent.

J. Vegetarian requirements. This product shall contain no ingredients, major or trace, and/or processing aids derived from the flesh, skin, blood, entrails, or bones of animals. This includes, but is not limited to oils, fats, fatty acids and their esters (palmitic, stearic, oleic, and pelargonic acids), flavorings, gelling agents, coagulants, (rennet derived from calves or pepsin derived from swine which are used in cheese manufacture), binders, emulsifiers (mono/di-glycerides, sodium or magnesium stearate, polysorbate, sorbitans, monostearate, glycerine), fatty alcohol, aldehydes and ketones, lactones, glycerol, amino acids, hydrolyzed proteins, enzymes, and enzyme modified products. Furthermore, these products shall contain no ethyl alcohol or ingredients derived from or containing ethyl alcohol. Milk and eggs, and ingredients derived from them such as yogurt or cheese (produced without animal based rennet or pepsin), are allowed.

**SECTION C CONTINUED**

**C-3 MISCELLANEOUS INFORMATION**

THE FOLLOWING LIST OF INGREDIENTS IS PROVIDED FOR INFORMATION ONLY AND TO PROVIDE THE BENEFIT OF PAST GOVERNMENT EXPERIENCE. THIS IS NOT A MANDATORY CONTRACT REQUIREMENT.

A. Ingredients. Tomatoes, lentils, pinto beans, red kidney beans, onions, tomato paste, vegetable oil, chili powder, salt, sugar, and spices.

**SECTION D**

**D-1 PACKAGING**

Product shall be filled into pouches and each pouch shall be packed in a carton in accordance with MIL-PRF-44073, Packaging of Food in Flexible Pouches.

**D-2 LABELING**

A. Pouches. Each pouch shall be clearly printed or stamped, in a manner that does not damage the pouch, with permanent black ink or any other contrasting color, which is free of carcinogenic elements. Prior to thermal processing of the pouches, the product name, lot number and filling equipment number shall be applied. All other marking may be applied before or after thermal processing.

(1) Product name (not less than 1/8 inch high). Commonly used abbreviations may be used when authorized by the inspection agency.

(2) Pouch code includes: 1/

- Lot Number
- Filling equipment identification number
- Official establishment number (for example, EST-38)
- Retort identification number
- Retort cook number

1/ The lot number shall be expressed as a four digit Julian code. The first digit shall indicate the year of production and the next three digits shall indicate the day of the year (Example, 16 December 2002 would be coded as 2350). The Julian code shall represent the day the product was packaged into the pouch and processed. Sub-lotting (when used) shall be represented by an alpha character immediately following the four digit Julian code. Following the four digit Julian code and the alpha character (when used), the other required code information shall be printed in the sequence as listed above

B. Cartons.

(1) The cartons shall be clearly printed on one of the largest panels with permanent black ink as follows:

- Product name (7/32 to 9/32 inch block letters)
- Ingredients
- Net weight
- Name and address of packer
- Code (same as pouch code, see pouches) 1/ 2/
- USDA official inspection legend for the packer's plant
- "Nutrition Facts" label in accordance with the Nutrition Labeling and Education Act (NLEA) and all applicable FDA/USDA regulations

1/ Code may be ink printed on any outside carton panel. Code may be embossed on any outside carton panel except the largest panels of the carton.

2/ Official establishment number not required in carton code.

(2) Military nutrition information entitled "Military Rations Are Good Performance Meals" shall be printed on the entrée cartons large panel opposite to the panel printed with the data in D-2, B,(1) above. The information, provided by the contracting officer, shall be clearly printed with permanent black ink in an area no smaller  in 3-3/4 inches by 5-3/4 inches.

**D-3 PACKING**

A. Packing for shipment to ration assembler. Seventy-two pouches (of the same product) in cartons shall be packed flat or on edge in a snug-fitting fiberboard shipping container conforming to style RSC, type CF, class domestic, grade 200 of ASTM D 5118, Standard Practice for Fabrication of Fiberboard Shipping Boxes. Each container shall be securely closed in accordance with ASTM D 1974, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Shipping Containers.

**D-4 MARKING**

A. Shipping containers. Shipping containers shall be marked in accordance with DPSC Form 3556, Marking Instructions for Shipping Cases, Sacks and Palletized/Containerized Loads of Perishable and Semiperishable Subsistence.

**SECTION E INSPECTION AND ACCEPTANCE**

Inspection for packaging, labeling and packing, and marking shall be in accordance with the Quality Assurance Provisions and Packaging Requirements for MIL-PRF-44073.

**E-5 QUALITY ASSURANCE PROVISIONS (PRODUCT)**

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.

Quality Assurance Provisions.

The following quality assurance criteria, utilizing ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspection by Attributes, are required.

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

(1) Production standard inspection. The first article or product demonstration model shall be inspected in accordance with the provisions of this Performance-based Contract Requirements 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.

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

\* B. Product examination. The finished product shall be examined for compliance with the performance requirements specified in Section C of this Performance-based Contract Requirements document utilizing the double sampling plans indicated in ANSI/ASQC Z1.4 - 1993. 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. For drained weight inspection, a separate set of pouches shall be selected from the lot using the same sampling criteria as above. The pouches shall be immersed in 140°F to 190°F water for 10 minutes prior to the drained weight inspection.

TABLE I. Product defects 1/ 2/ 3/ 4/

Category		Defect
<u>Major</u>	<u>Minor</u>	
		<u>Appearance</u>
101		Product reasonably free from broken beans, or mashed beans or beans with loose skins <u>5/</u>
	201	Product not a mixture of red kidney beans, pinto beans, and lentils in a sauce with pieces of tomato and onions
	202	Red kidney beans not dark to reddish brown color
	203	Pinto beans not reddish brown color
	204	Lentils not dark to reddish brown color
	205	Sauce not reddish brown color
		<u>Odor and flavor</u>
102		Odor or flavor not of cooked western-style beans in a mild pungent sauce with Mexican type seasoning and spices
		<u>Texture</u>
	206	Red kidney beans or pinto beans or lentils not slightly soft to slightly firm
	207	Sauce not moderately thick with pieces of tomato and onions
		<u>Weight</u>
	208	Net weight of an individual pouch less than 4.5 ounces <u>6/</u>
	209	Drained weight of an individual pouch less than 3.4 ounces <u>7/</u>

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1/ Presence of any foreign material such as, but not limited to dirt, insect parts, hair, glass, wood or metal, or foreign odors and 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 first article, when applicable, or other approved model in palatability and overall appearance shall be cause for rejection of the lot.

3/ Product not verified by a certificate of conformance as meeting the vegetarian requirements shall be cause for rejection of the lot.

4/ The drained weight of the red kidney beans and pinto beans combined of not less than 1.5 ounces in an individual pouch shall be verified with a certificate of conformance based on the producer's formulation.

5/ Shall be determined by visual examination.

6/ If the sample average net weight is less than 5.0 ounces, the lot shall be rejected.

7/ If the sample average drained weight of the product is less than 3.6 ounces, the lot shall be rejected.

C. Methods of inspection.

(1) Commercial sterility. Testing for commercial sterility shall be in accordance with MIL-PRF-44073.

\* (2) Shelf life. The contractor shall provide a certificate of conformance that the product has a 3 year shelf life when stored at 80<sup>0</sup>f. Government verification may include storage for 6 months at 100<sup>0</sup>F or 36 months at 80<sup>0</sup>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.

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

(4) Drained weight. The pouch contents shall be poured into a flat-bottom container. A minimum of three times the pouch's volume of 180<sup>0</sup>F to 190<sup>0</sup>F water shall be added to the container so as to cover the contents. The contents and water shall be gently agitated without breaking the beans. The contents shall then be poured into a U.S. Standard No. 7 sieve in a manner that will distribute the product over the sieve without breaking the beans. The sieve area shall be such that the distributed product does not completely cover all the openings of the sieve. The sieve shall be tilted at approximately a 45<sup>0</sup> angle and allowed to drain for 2 minutes before determining the drained weight by subtracting the sieve tare weight from the gross weight. The drained weight shall be reported to the nearest 0.1 ounce.

\* (5) Nutrient content. The sample to be analyzed shall be a composite of eight filled and sealed pouches, which have been selected at random from the lot. The composited sample shall be prepared (see Note) and analyzed for fat and salt content in accordance with the following methods of the Official Methods of Analysis of AOAC International:

<u>Test</u>	<u>Method Number</u>
Fat	960.39, 985.15
Salt	935.47

Test results shall be reported to the nearest 0.1 percent. Any result not conforming to the requirements specified in Section C of this Performance-based Contract Requirements document shall be cause for rejection of the lot.

NOTE: The USDA will use AOAC method 983.18 for preparation of the sample.

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

**A. Packaging and labeling.**

(1) Pouch material testing. The pouch material shall be examined for the characteristics listed in table I of MIL-PRF-44073. The lot size, sample unit, and inspection level criteria for each of the test characteristics are listed below. Any test failure shall be classified as a major defect.

Characteristic	Lot size expressed in	Sample unit	Inspection level
Oxygen transmission rate	yards	1/2 yard	S-1
Water vapor transmission rate	yards	1/2 yard	S-1
Camouflage	yards	1/2 yard	S-1
Thermal processing	pouches	1 pouch	S-2
Environmental conditions	pouches	1 pouch	S-2

(2) Pouch examination. The pouches shall be examined for the defects listed in table II of MIL-PRF-44073. The lot size shall be expressed in pouches. The sample unit shall be one thermal processed pouch. The inspection level shall be I and the AQL, expressed in terms of defects per hundred units, shall be 0.65 for major A defects, 2.5 for major B defects, and 4.0 for minor defects. Two hundred sample units shall be examined for critical defects. The finding of any critical defect shall be cause for rejection of the lot.

(3) Examination of pouch and carton assembly. The completed pouch and carton assemblies shall be examined for the defects listed in table III of MIL-PRF-44073. The lot size shall be expressed in units of completed assemblies. The sample unit shall be one pouch and carton assembly. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 0.65 for major defects and 2.5 for minor defects. Fifty sample pouch and carton assemblies shall be examined for critical defects. The finding of any critical defect shall be cause for rejection of the lot.

**B. Packing.**

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

TABLE II. Shipping container and marking defects

Category	Defect
<b><u>Major</u></b>	<b><u>Minor</u></b>
101	Marking omitted, incorrect, illegible, or improper size, location sequence or method of application.
102	Inadequate workmanship. <u>1</u> /
	201 Contents more or less than specified.

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**

MILITARY SPECIFICATION

MIL-PRF-44073 - Packaging of Food in Flexible Pouches

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY CONTROL (ASQC)

ANSI/ASQCZ1.4-1993 - Sampling Procedures and Tables for Inspection by  
Attributes

AOAC INTERNATIONAL

Official Methods of Analysis of the AOAC International

AMSSB-RCF-F(N) (Richards/5037)  
16 December 2002

TO: DSCP-HRAC (Galligan/8030)

SUBJECT: ES03-027, (DSCP-SS-03-00858), DSCP Contract, SPO300-D-Z105, Request change to labeling requirement in Beans, Western; PCR-C-045, Clam Chowder, New England Style; PCR-M-009, Macaroni and Cheese, Mexican Style; PCR-M-004, Minestrone Stew; PCR-P-011, Potatoes, Mashed; PCR-R-007, Refried Beans; PCR-R-001, Rice.

1. Date received: 26 November 2002  
Date due: 11 December 2002  
Date replied: 16 December 2002

2. The Natick Soldier Center (NSC) recommends the following change to the subject PCRs for use in all current, pending and future procurements until the document is formally amended or revised:

Section D:

Para D-2B. (2), in last line, after "smaller than" delete "4-1/4 inches by 6-3/4 inches" and substitute "3-3/4 inches by 5-3/4 inches"

3. See attached revised PCRs.

4. POC for this action is Mr. Peter Sherman x4062 or Mr. Allen Richards, X5037.

DONALD A. HAMLIN  
Team Leader  
DoD Food Engineering  
Services Team

(ARichards)

CF: NSC:  
Acheson  
Alyward  
Friel  
Hamlin  
Hill  
Konrady A.  
Richards

Sherman  
Trottier  
Valvano

CF: DSCP & SVCs:  
Anthony  
Arthur  
Beward  
Charette  
Ferrante  
Galligan  
Hoffman

Kavanagh  
Lowry  
Malason  
Richardson H.  
Salerno