

SECTION CC-1 NSN/ITEM DESCRIPTION

PCR-R-001 RICE, PACKAGED IN A FLEXIBLE POUCH, SHELF STABLE

Types.

- I - White rice
- II - Mexican rice
- III - Yellow and Wild Rice Pilaf

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) Type I - white rice. The cooked rice shall be typical of rice produced from enriched, parboiled, long grain, milled rice. The cooked rice shall have an off white color. The rice shall be distinct rice grains with a glossy sheen.

(2) Type II - Mexican rice. The cooked rice shall be typical of rice produced from enriched, parboiled, long grain, milled rice. The cooked rice shall have a reddish-brown color. The rice shall be distinct rice grains. There shall be pieces of corn, olives, sweet red peppers, herbs, and Mexican-style seasoning and spices.

(3) Type III - yellow and wild rice pilaf. The cooked rice shall be typical of rice produced from enriched, parboiled, long grain, milled rice. The cooked yellow and wild rice pilaf shall be a uniform mixture of rice and wild rice with herbs and spices. There shall be pieces of carrots, peas, and mushrooms. The rice shall have a medium yellow color, typical of product with turmeric. The wild rice shall have a dark brown to black color. Both kinds of rice shall be distinct grains with a glossy sheen.

(4) Foreign. 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) Type I - white rice. The packaged rice shall have an odor and flavor characteristic of cooked, buttery-flavored rice.

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(2) Type II - Mexican rice. The packaged rice shall have an odor and flavor characteristic of cooked rice with corn, olives, sweet red peppers, herbs, and Mexican-style seasoning and spices. The product shall elicit a sensation of medium heat.

(3) Type III - yellow and wild rice pilaf. The packaged rice shall have an odor and a mild, nutty flavor characteristic of cooked rice and wild rice with carrots, peas, mushrooms, and herbs, and mild to moderate seasoning and spices.

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

F. Texture.

(1) Type I - white rice. The rice shall be moist and shall be slightly soft to slightly firm.

(2) Type II - Mexican rice. The rice shall be moist and shall be slightly soft to slightly firm. The pieces of corn, olives, and sweet red peppers shall be slightly soft to slightly firm.

(3) Type III - yellow and wild rice pilaf. The yellow rice shall be moist and slightly soft to slightly firm. The wild rice shall be moist and shall have a slight crunch. The pieces of carrots, peas, and mushrooms shall be slightly soft to slightly firm.

G. Weight.

(1) Net weight - Type I white rice. The average net weight of the pouched product shall be not less than 5.0 ounces. No individual pouch shall contain less than 4.5 ounces of product.

(2) Net weight - Type II Mexican rice. The average net weight of the pouched product shall be not less than 5.0 ounces. No individual pouch shall contain less than 4.5 ounces of product. The combined weight of the corn, olives, and sweet red peppers in an individual pouch shall be not greater than 0.5 ounce.

(3) Net weight - Type III yellow and wild rice pilaf. The average net weight of the pouched product shall be not less than 5.0 ounces. No individual pouch shall contain less than 4.5 ounces product. The wild rice in an individual pouch shall be not less than 1.0 ounce. The combined weight of the pieces of carrots, peas, and mushrooms in an individual pouch shall be not greater than 0.5 ounce.

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. The nutrient content for the type I, type II, and type III rice shall be as stated in table I.

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*TABLE I. Nutrient content 1/

	Moisture		Fat	Salt
	NGT	NLT	NGT	NGT
Type I	70.0%	60.0%	8.5%	1.5%
Type II	68.0%	62.0%	3.5%	1.5%
Type III	76.0%	70.0%	4.0%	1.5%

1/ NGT = not greater than NLT = not less than

C-3 MISCELLANEOUS INFORMATION

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

A. Ingredients and formulation. Ingredients and formulation percentages may be as follows:

(1) Type I - white rice

<u>Ingredients</u>	<u>Percent by weight</u>
Rice, enriched, parboiled, long grain, blanched	52.8
Water	35.2
Margarine	10.5
Salt	1.2
Lecithin	0.3

(2) Type II - Mexican rice

<u>Ingredients</u>	<u>Percent by weight</u>
Rice, enriched, parboiled, long grain, Blanched	67.85
Broth/stock, chicken, canned, frozen or dehydrated (16 percent solids)	11.86
Water	7.91
Corn	4.50
Oil, vegetable	2.55
Chili powder	1.20
Olives, ripe, pitted, sliced, canned	0.90
Onions, chopped, dehydrated	0.90
Peppers, red, sweet, dehydrated	0.90
Salt	0.80
Lecithin	0.25
Parsley	0.15
Pepper, white, ground	0.07
Garlic powder	0.07
Pepper, jalapeno, powder	0.05
Pepper, red, ground	0.04

(3) Type III - yellow and wild rice pilaf

Ingredients - rice (enriched, parboiled, long grain) water, wild rice, carrots, seasoning mix (shall contain turmeric), peas, mushrooms pieces, and corn oil.

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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 than 3-3/4 inches by 5-3/4 inches.

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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, Packaging of Food in Flexible Pouches.

E-6 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 of the first article or product demonstration model.

(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
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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 II.

TABLE II. Product defects 1/ 2/ 3/ 4/ 5/ 6/

Category		Defect
<u>Major</u>	<u>Minor</u>	<u>Appearance</u>
101		Color of rice not off white (type I)
102		Color of rice not reddish-brown (type II)
103		Color of rice not medium yellow (type III)
104		Not distinct grains of rice
	201	Color of wild rice not dark brown to black (type III)
	202	No evidence of glossy sheen on rice grains (type I or type III)
	203	No pieces of corn, olives, and sweet red peppers (type II)
	204	No pieces of carrots, peas, and mushrooms (type III)
		<u>Odor and flavor</u>
105		Odor or flavor not characteristic of buttery-flavored cooked rice (type I)
106		Odor or flavor not characteristic of cooked rice with corn, olives, sweet red peppers, herbs, and Mexican-style seasoning and spices or does not elicit a sensation of medium heat (type II)
107		Odor or flavor not characteristic of cooked rice and wild rice with carrots, peas, mushrooms, herbs, and spices or not mild nutty flavor of wild rice (type III)
		<u>Texture</u>
108		Rice not slightly soft to slightly firm (type I or type II)
109		Rice not slightly soft to slightly firm or wild rice not slightly crunchy (type III)

205 Rice not moist

206 Vegetable pieces not slightly soft to slightly firm
(type II or type III)

Weight

207 Net weight of an individual pouch less than 4.5 ounces 7/

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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, or stale 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/ Enriched, parboiled, long grain rice shall be verified with the statement of ingredients on the label.

4/ For type II product, the combined weight of the corn, olives, and red peppers of not greater than 0.5 ounce in an individual pouch shall be verified with a certificate of conformance based on the producer's formulation.

5/ For type III product, wild rice of not less than 1.0 ounce in an individual pouch shall be verified with a certificate of conformance based on the producer's formulation.

6/ For type III product, the combined weight of the carrots, peas, and mushrooms of not greater than 0.5 ounce in an individual pouch shall be verified with a certificate of conformance, based on the producer's formulation.

7/ If the sample average net weight is less than 5.0 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°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.

(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) 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

moisture content, fat content, 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>
Moisture	925.45D
Fat	960.39, 985.15
Salt	935.47

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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.

<u>Characteristic</u>	<u>Lot size expressed in</u>	<u>Sample unit</u>	<u>Inspection level</u>
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
<u>Major</u>	<u>Minor</u>
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.

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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

OTHER GOVERNMENT DOCUMENTS

Code of Federal Regulations (21 CFR Parts 100-169)

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.

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