TO: DSCP-FTRAA (Lowry/7773)

SUBJECT: ES07-070; Technical Inquiry; MRE Items, Retort Pouch Testing Update 20 Mar 2007

- 1. Natick concurs in the update of all MRE 27 retort pouch item documents to cite completely the testing requirements.
- 2. For documents PCR-C-020, Cheese Tortellini; PCR-C-022, Chicken Breast; PCR-C-023, Chicken Breast Cavatelli; PCR-C-0002, Chicken Breasts Salsa; PCR-C-018, Chicken Tetrazzini; PCR-C-021, Chicken Noodles; PCR-M-0001, Meatloaf and PCR-S-0002, Spaghetti; at the end of Section E, insert the following:

"Quality assurance provisions (Packaging).

(1) <u>Pouch material testing</u>. The pouch material shall be examined for the characteristics listed in table I of MIL-PRF-44073 for Type I. 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
Low temperature	pouches	1 pouch	S-2
High temperature	pouches	1 pouch	S-2

(2) <u>Filled and sealed pouch testing</u>. The filled and sealed thermoprocessed or hot-fill processed pouches shall be examined for the characteristics listed in table I of MIL-PRF-44073 for Type I. 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
Residual gas volume	pouches	1 pouch	S-2
Internal pressure	pouches	1 pouch	S-2 <u>1</u> /
Sterility	pouches	1 pouch	S-2 <u>2</u> /

^{1/} When a three-seal tester is used, a separate set of samples is required for testing of the closure seal.

2/ Select a minimum of one pouch from each retort load. Select pouches from different areas within the retort. For a continuous cooking process, an inspection level of S-3 shall be used to establish sample size.

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- (3) <u>Pouch examination</u>. The pouches shall be examined for the defects listed in table II of MIL-PRF-44073 for Type I. 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.
- (4) 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 for Type I. 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."
- 3. For the documents listed in the attachment, the following changes are recommended:
 - a. Para E-6,A,(1), in table.

Delete	e "Environmental conditions	pouches	1 pouch	S-2"
Add	"Low temperature	pouches	1 pouch	S-2
	High temperature	pouches	1 pouch	S-2"

b. Para E-6,A. Add:

"(2) <u>Filled and sealed pouch testing</u>. The filled and sealed thermoprocessed or hot-fill processed pouches shall be examined for the characteristics listed in table I of MIL-PRF-44073 for Type I. 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
Residual gas volume	pouches	1 pouch	S-2
Internal pressure	pouches	1 pouch	S-2 <u>1</u> /
Sterility	pouches	1 pouch	S-2 <u>2</u> /

- 1/ When a three-seal tester is used, a separate set of samples is required for testing of the closure seal.
- 2/ Select a minimum of one pouch from each retort load. Select pouches from different areas within the retort. For a continuous cooking process, an inspection level of S-3 shall be used to establish sample size."
 - c. Paras E-6,A,(2) and (3). Renumber to (3) and (4).

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- 4. For A-A-20155C, Tuna, Canned, Packaging and Quality Assurance Provisions, the following changes are recommended:
 - a. Para E-6,A,(1), in table.

Delete	"Environmental conditions	pouches	1 pouch	S-2"
Add	"Low temperature	pouches	1 pouch	S-2
	High temperature	pouches	1 pouch	S-2"

b. Para E-6,A. Add:

"(2) <u>Filled and sealed pouch testing</u>. The filled and sealed thermoprocessed or hot-fill processed pouches shall be examined for the characteristics listed in table I of MIL-PRF-44073 for Type I. 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
Residual gas volume	pouches	1 pouch	S-2
Internal pressure	pouches	1 pouch	S-2 <u>1</u> /
Sterility	pouches	1 pouch	S-2 <u>2</u> /

- 1/ When a three-seal tester is used, a separate set of samples is required for testing of the closure seal.
- 2/ Select a minimum of one pouch from each retort load. Select pouches from different areas within the retort. For a continuous cooking process, an inspection level of S-3 shall be used to establish sample size."
 - c. Para E-6,A,(2). Renumber to (3).
- 5. It is recommended that DSCP cite these changes via contract modification for all MRE 27 and MRE future contracts. The changes will be incorporated into the documents when the documents are amended or revised.

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MRE Retort Pouch Items to Modify Testing Requirement

Beef Patty, Grilled	PCR-B-010 PCR-B-029 PCR-B-021
	PCR-B-035 PCR-B-020
Chicken Fajita	PCR-C-054 PCR-C-055
Chicken and Dumplings	PCR-C-067
Chili and Macaroni	PCR-C-027
	PCR-C-062 PCR-M-015
Meatballs in Marinara Sauce Penne with Vegetarian Sausage Crumbles in Spicy Tomato Sauce	PCB-P-036
Pork Rib, Boneless, Imitation, Smoke Flavoring	PCR-P-028 PCR-S-013
	PCR-V-003
Clam Chowder, New England Style	PCR-V-004 PCR-C-045 PCR-C-066
Hash Browns with Bacon	PCR-H-012 PCR-M-009
Potatoes, Mashed	PCR-M-013 PCR-P-011
Rice	PCR-R-007 PCR-R-001A
Cobbler, Cherry Blueberry	PCR-A-001A PCR-C-058 PCR-F-002B