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Date: Tue, 18 Dec 90 14:25:19 EST
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Subject: pork chops;31-a-040-90

STRNC-WTP

17 December 1990

TO: DPSC-HSS

Subject: Clarification of Requirement; [redacted]E, Pork Chops, Dehydrated, Uncooked; NSN: 8905-00-935-6395; Oregon Freeze Dry; DESERT SHIELD; DPSC Case No. 31-A-040-90

1. Date received: 11 December 1990 (Valvano/4259)
Date due: ASAP
Date replied: 12 December 1990; (Teeple/2988)

2. Contractor requested clarification to the requirement on dark colored or glazed areas on the pork chops. Both DPSC and the contractor provided suggested wording for this requirement. This Center has evaluated the request and provides the following responses:

a. This Center does not concur with changing the finished product requirement as suggested by DPSC or Oregon Freeze Dry.

b. Regardless of what causes the glazed or dark colored areas, these defects seriously affect the palatability (texture and mouthfeel) of the rehydrated, cooked pork chop.

c. In order to diffuse the argument as to the cause of these defects, the following change is provided to subject document for all current, pending and future procurements until document is formally amended or revised:

Paragraph 3.5.1, number 4), line 1, delete "evidence of faulty dehydration procedures such as" entirely. ✓
-- The Soldier's Command.

PHILIP BRANDLER
Acting Director
Food Engineering Directorate

ES REQUIRED

MIL-P-43144E
22 May 1979
SUPERSEDING
MIL-P-43144D
12 December 1977

MILITARY SPECIFICATION

PORK CHOPS, DEHYDRATED, UNCOOKED

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 This specification covers raw, freeze-dehydrated pork chops for use by the Armed Forces as a component of operational rations.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

SPECIFICATIONS

FEDERAL

TT-C-495	-	Coatings, Exterior, for Tinned Food Cans
PPP-B-636	-	Boxes, Shipping, Fiberboard
PPP-C-29	-	Canned Subsistence Items, Packaging and Packing Of
PPP-C-96	-	Cans, Metal, 28 Gage and Lighter

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in approving this document should be addressed to: Commander, US Army Natick Research and Development Command, ATTN: DRDNA-ES, Natick, MA 01760 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 8905

tests are used to measure the ... 6.6.1.6 Resistance to Abrasion. Abrasion

MILITARY

MIL-L-1497 - Labeling of Metal Cans for Subsistence Items
MIL-L-35078 - Loads, Unit, Preparation of Nonperishable Subsistence

STANDARDS

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-668 - Sanitary Standards for Food Plants

(Copies of specifications and standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity, or as directed by the contracting officer.)

LAWS AND REGULATIONS

US DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Federal Food, Drug, and Cosmetic Act and Regulations Promulgated Thereunder

(Application for copies should be addressed to the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.)

US DEPARTMENT OF AGRICULTURE

Regulations Governing the Meat Inspection of the U. S. Department of Agriculture

(Application for copies should be addressed to the Information Division, Agricultural Marketing Service, US Department of Agriculture, Washington, DC 20250.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply:

AMERICAN DRY MILK INSTITUTE, INC.

Standards for Grades of Dry Milks Including Methods of Analysis, Bulletin 916

(Application for copies should be addressed to the American Dry Milk Institute, Inc., 140 No. Franklin Street, Chicago, IL 60606.)

THE UNITED STATES PHARMACOPOEIAL CONVENTION, INC.

Pharmacopoeia of the United States

(Application for copies should be addressed to the United States Pharmacopoeial Convention, Inc., 46 Park Avenue, New York, NY 10016.)

ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS

Official Methods of Analysis of the Association of Official Analytical Chemists

(Application for copies should be addressed to the Association of Official Analytical Chemists, Box 540, Benjamin Franklin Station, Washington, DC 20402.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, Inc., Tariff Order Section, 1616 P Street, N.W., Washington, DC 20036.)

(Technical society and technical association specifications and standards are generally available for references from libraries. They are also distributed among technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 First article. When specified (see 6.1) the supplier shall furnish a sample for first article inspection and approval (see 4.4 and 6.1).

* 3.2 Material.

3.2.1 Pork. Pork shall be derived from fresh chilled or frozen loins, Selection 1 or 2. These cuts may be used singly or in any combination. Meat destined for use in the product shall be excellent condition. Also, the pork shall show no evidence of mishandling. Coarse texture, dark meat as typically produced from aged sows, stags or boars is not acceptable. Cuts may be initially offered for examination in the boneless state. (PSE) pork shall be excluded. Boning and trimming of the pork component shall be such as to comply with the end item requirement.

3.2.2 Nitrogen. Nitrogen shall be U.S. Pharmacopoeia grade and shall be water pumped or liquid nitrogen pumped.

3.3 Processing.

3.3.1 Boning, trimming, and forming. The bone-in loins shall be boned, trimmed, and formed in molds or casings to produce cylindrical pieces from which chops may be cut or sliced. The operations shall be so performed that the product shall comply with 3.3.3 and 3.5.

3.3.2 Slicing and freezing of pork chops. The formed loins shall be sliced at approximately right angles to the muscle fibers (across the grain). The loins may be frozen and cut by bandsaw or equivalent means, or the loins may be sliced by a mechanical slicer after being tempered to a satisfactory temperature for such slicing operation. The sliced chops shall be frozen and held at 0°F. (-18° C) or lower. Times and temperatures during the operation shall comply with 3.4.1.

* 3.3.3 Physical requirements and packing of frozen pork chops. The frozen pork chops shall comply with the following physical requirements:

(1) There shall be no cuts or splits penetrating the lean meat more than 1/4 inch (6.4 mm).

(2) There shall be no blood clots or bruises larger than 1/4 inch (6.4 mm) in any dimension.

(3) There shall be no bone particles larger than 1/4 inch (6.4 mm) in any dimension.

(4) The product shall consist of whole pieces meeting the following fat, dimensional, and weight requirements:

(a) Surface fat shall be not more than 1/4 inch (6.4 mm) average thickness with no point exceeding 3/8 inch (10 mm). Bridging, not exceeding 1-inch (25 mm) in length is permitted.

(b) There shall be not fat on the flat surface of the chop (surface formed in cutting chop from boneless loin) measuring more than 3/8 inch (9.5 mm) in width and 3/4 inch (19 mm) in length on both surfaces.

(c) Thickness of individual chops shall be 3/8 inch $\pm$ 1/16 inch (9.5 $\pm$ 1.6 mm).

8.7.1 Mix design procedures. Design concrete in accordance with

(d) Weight of individual chops shall be 2 ounces ± 5/16 ounce (56.6 ± 8.8 g).

(e) There shall be no fat on the flat surface of the chop (surface formed in cutting chop from boneless loin) measuring more than 1/2 inch (13 mm) in width and more than 1 inch (25 mm) in length on either major surface.

(5) The individual chops shall be approximately circular in shape. There shall be no edge crevices, caused by forming or defatting, that extend more than 3/4 inch (19 mm) toward the center of the chop.

(6) The meat shall have been sliced perpendicular to the long axis of the loin.

3.3.3.1 Packing prior to dehydration. When the raw product is required to be shipped to another plant for dehydration, the pork slices shall be packed in accordance with 5.2.3.

3.4 Dehydration. The product shall be freeze-dehydrated at an absolute pressure not to exceed 1.5 millimeters (mm) of mercury, and a product temperature, as indicated by suitable instruments of not more than 130°F. (54.4° C). If the platen temperature is maintained at 135°F. (57.2° C) or below with radiant heating, the product temperature may be disregarded. After dehydration is completed, the pressure shall be equalized to atmospheric level with nitrogen, and the product shall be immediately packaged as specified in 5.1. If production scheduling necessitates any holding period, the product shall be adequately protected from oxygen and moisture by either holding under a nitrogen atmosphere with 2.0 percent or less oxygen, or under a vacuum of at least 27 inches (68.6 cm) of mercury for the entire holding period. If vacuum is used, it shall be broken with nitrogen.

* 3.4.1 Temperature and time limitations. The pork shall be handled so as to comply with the following limitations:

(1) Maximum time from boning until individual pieces reach an internal temperature of 0°F. (17.8° C). 3 days

(2) Internal temperature at the thickest part of the bone-in loins shall be in a temperature range of 28°F (-2°C) to 40°F (4°C) at any time after initinal chilling following slaughter and prior to boning. Alternatively, the internal temperature in the thickest part of the bone-in loin shall be in a temperature range of 28°F (-2°C) to 46°F (8°C) inclusive at any time after chilling, following slaughter and prior to boning and the bone-in loin shall be offered within 48 hours of the stated kill date as evidence by USDA kill date certificate.

(3) Maximum temperature to which frozen pork may be tempered for slicing or sawing into individual pieces. 28°F. (-2.2° C)

(4) Maximum time for individual pieces to reach an internal temperature of 0°F. (17.8° C) from time of slicing. 24 hours

(5) Maximum internal temperature of individual pieces from the time of freezing to time they are placed in the dehydrator provided that the pieces are placed in a freezer at -10°F immediately upon receipt. 10°F (-12°C)

(6) Maximum time from boning of loins to start of dehydration. 20 days

(7) Maximum time from boning of loins to start of dehydration provided that individual pieces are held at -10°F. (-23.3° C) or lower for the entire period. 30 days

3.4.2 The dehydrated pork chops may be perforated in a needle press prior to packaging to improve rehydration characteristics provided that stainless steel needles no larger than 1/16 inch (1.6 mm) in diameter are used, and provided that the product is exposed to the atmosphere with a relative humidity of not more than 30 percent for no longer than 2 hours.

3.5 Finished product.

* 3.5.1 Physical requirements. The finished product shall comply with the following physical requirements:

(1) There shall be no foreign material such as, but not limited to, dirt, glass, paint.

(2) There shall be no extraneous material such as, but not limited to, casings, string, wrapping paper.

(3) There shall be no evidence of incomplete dehydration such as wet or soft spots.

(4) There shall be no evidence of faulty dehydration procedures such as glazed areas more than 1/2 inch (12.7 mm) in any dimension or dark-colored cores of any dimensions.

(5) At least 95 percent of the container net weight shall consist of whole slices. A whole slice is a chop weighing not less than 13 grams (1/2 oz) nor more than 21 grams (3/4 oz). These slices shall have been derived from the raw cut loin and shall have met the thickness and shape requirements of 4c and 5 of 3.3.3 before dehydration. There shall be no alteration or modification of the slices after the completion of the dehydration process.

(6) When the product is rehydrated in an excess of water at a temperature of 70° to 100° F. (21° C to 37.8° C) for 20 minutes, drained, and grilled for 2 minutes per side on a 400°F. (204.4° C) grill, the resulting product shall have flavor, odor, and texture considered normal for grilled frozen pork chops (comparable to the first article). There shall be no foreign or undesirable flavor or odor.

(7) When the product is rehydrated and grilled as in item 6 above, then cut through twice at right angles, the cross-section shall show no unrehydrated spots larger than 1/8 inch (3.2 mm) in any dimension. Since gristle, gelatinous material, and connective tissue frequently tend to impede proper rehydration, callous-like areas ascribable to these conditions shall not be considered evidence of improper rehydration.

3.5.2 Analytical requirements. The finished product shall comply with the following analytical requirements on a unit basis:

	Percent, maximum
Moisture	2.0
Oxygen in headspace gas	2.0

3.6 Plant inspection for pork component. The fresh pork shall be prepared only in a plant which is operated under continuous inspection by Animal and Plant Health Inspection Service, Agricultural Marketing Service, U. S. Department of Agriculture.

3.7 Plant qualification. Plants performing the fabrication, processing, and dehydration shall be operated under the Regulations Governing Meat Inspection of the U.S. Department of Agriculture. Finished product refrigeration facilities (freezer, storage and shipping) not operating under these regulations shall meet the requirements of MIL-STD-668.

3.8 Federal food, drug and cosmetic act. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspection. The inspection requirements specified here are classified as follows:

1. First article inspection (see 4.4)
2. Quality conformance inspection (see 4.5)

4.3 Qualification inspection. The product furnished under this document shall be unacceptable if not produced and stored in plants which currently meet the qualification conditions of 3.6 and 3.7 (see also 6.5).

4.4 First article inspection. When a first article is required, the Pork Chops shall be examined as specified in 4.5.5. The presence of any defect shall be cause for rejection of the first article.

4.5 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.5.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified or qualified in this specification or applicable purchase document.

4.5.1.1 Examination of the bone-in pork loin component, fresh or frozen. Examination shall be made of bone-in pork loins in the fresh or thawed state to determine compliance with the condition and freezer storage requirements of 3.2.1. Records of freezer storage time shall be maintained. Nonconformance to one or more requirement(s), reflected by actual examination or by records, shall be cause for rejection of the involved quantity of the component lot or of the finished product made therefrom, as applicable.

4.5.2 Examination of nitrogen. Determination of compliance with the requirements of 3.2.2 as concerns identity, shall be made by examination of labels, invoices or other valid documents. Nonconformance to the identity requirements shall be cause for rejection of the lot.

4.5.3 Testing of components. Testing of components described in this specification shall be as shown in table I. Results shall be applicable to the lot average. Nonconformance to the test requirement shall be cause for rejection of the lot.

TABLE I. Testing of components (see 4.3.1)

Component	Sample unit	Lot size expressed in	Inspection level	Characteristics	Results reported to nearest	Test ref and rqmt par
Cans and lids 1/	1 can with lid	Cans	S-1	Tin plate	0.01 lb. per base box	4.7.2.2 and 5.1

1/ Exterior can coating and can label shall be tested in accordance with the applicable subsidiary specifications except that tests shall be performed on the same cans submitted for tin plate testing.

4.5.4 Process examination.

4.5.4.1 Preparation of pork chops. Examination shall be made during processing to determine compliance with the following: Boning, trimming and forming procedures of 3.3.1, slicing and freezing procedures of 3.3.2, and time and temperature limitations of 3.3.2. Records of temperature and time limitations shall be maintained. Nonconformance to one or more of the above referenced requirements as reflected by examination of records or actual examination shall be cause for rejection of the involved quantity of the component material or of the involved quantity of finished product made therefrom, as applicable.

* 4.5.4.2 Examination of frozen pork chops. Classification of defects for frozen pork chops, prior to dehydration, shall be in accordance with table II. Lot size shall be expressed in terms of pounds (Kg). The sample unit for examination shall be 1 pork chop. The sample size shall be the number of sample units indicated by inspection level I. The acceptable quality level (AQL), expressed as defects per hundred units, shall be 1.5 for Major B defects and 4.0 for minor defects.

TABLE II. Examination of frozen pork (prior to dehydration) 1/

Category		Defect
Major B	Minor	
151		Blood clots or bruises larger than 1/4 inch (6.4 mm) in any dimension.
152		Bone particles larger than 1/4 inch (6.4 mm) in any dimension.
153		Surface fat exceeds 1/4 inch (6 mm) average thickness or exceeds 3/8 inch at any point.
154		Fat on the flat surface of the chop (surface formed in cutting chop from boneless loin) measures more than 3/8 inch (9.5 mm) in width and 3/4 inch (19 mm) in length on both surfaces. 2/
155		Fat on the flat surface measures more than 1/2 inch (13 mm) in width and more than 1 inch (25 mm) in length on either surface.
	201	Cuts or splits penetrate the lean meat more than 1/4 inch (6.4 mm).

TABLE II. Examination of frozen pork (prior to dehydration) 1/ (cont'd)

Category		Defect
Major B	Minor	
	202	Individual chops measure more than 7/16 inch (11 mm) or less than 5/16 inch (8 mm) thickness.
	203	Individual chops weigh more than 2-5/16 ounces (65.6 g) or less than 1-11/16 ounces (47.8 g).
	204	Individual chops not approximately circular in shape.
	205	Edge crevices of individual chops extend more than 3/4 inch (19 mm) toward the center.
	206	Individual chops not sliced perpendicular to the long axis of the loin.

1/ All linear measurements shall be reported to the nearest 1/16 inch (2 mm).

2/ Defect shall be on both major surfaces before it is recorded.

4.5.4.3 Examination of packing of raw frozen pork chops (when applicable). Lot size shall be expressed in terms of shipping containers. The sample unit shall be one container. The sample size shall be the number of sample units indicated by inspection level I. The acceptable quality level (AQL), expressed as percent defective, shall be 2.5. A major defect shall be scored if marking is missing, incorrect or illegible.

4.5.4.4 Dehydration procedures and time and temperature limitations. Examination shall be made during processing to determine compliance with the requirements of 3.4 and 3.4.1 as concerns freezing, absolute pressure, momentary pressure changes (as necessary), temperature, time and temperature limitations, holding, use of nitrogen or vacuum and other procedures. Records of pressures, temperature, time elapses and associated control data shall be maintained. Noncompliance with one or more of the above referenced requirements, reflected by actual examination or by examination of records, shall be cause for rejection of the involved component lot or the finished product made therefrom.

4.5.4.5 Examination of needle press perforations, when applicable and packaging under nitrogen. Examination shall be made to determine compliance with the requirements of 3.4.2 and 5.1, as concerns needle press perforations of dehydrated pork chops and packaging under nitrogen. Records of relative humidity and applicable time control data relative to this packaging operation shall be maintained. Noncompliance with one or more of the above referenced requirements, (or use of perforation needles larger than 1/16 inch (1.6 mm) in diameter), as reflected by examination of records or by actual examination shall be cause for rejection of the component lot or the involved lot of finished product made therefrom.

4.5.5 Examination of end item. Classification of defects found during examination shall be in accordance with tables IV through VII and 4.5.5.1 through 4.5.5.5. The examination criteria for the above referenced tables shall be as shown in table III. The acceptable quality levels (AQLs) shall be expressed as percent defective for tables IV and V and in terms of defects per hundred units for tables VI and VII.

TABLE III. End item examination

Table	Inspection level	Sample unit	Lot size expressed in	AQLs		
				Major A	Major B	Minor
IV	S-3	1 can	Cans	---	1.5	---
	S-4	1 can	Cans	---	---	2.5
VI	S-3	Contents of one can 1/	Cans	2/	4.0	---
VII	S-3	Contents of one can	Cans	3/	4.0	---

1/ See 4/ of table VI.

2/ See footnote 1/ of table VI.

3/ See footnote 1/ of table VII.

TABLE IV. Examination for leakage 1/

Category	Defect
Major B	
151	Steady progression of bubbles.

1/ See 4.7.1.1.

TABLE V. Examination for net weight

Category	Defect
Minor	
201	Dehydrated product: Less than 19-1/4 ounces (539 g) in can. 1/

1/ Report weight to the nearest 1/8 ounce (3.5 g). The lot shall be rejected if the sample average net weight is determined to be less than the sample average marked net weight.

TABLE VI. Examination of pork slices for physical requirements 1/ 4/

Category		Defect
Major A	Major B	
101		Presence of foreign material such as, but not limited to, dirt, glass, paint, etc.
102		Presence of extraneous material such as but not limited to, casings, string, wrapping paper, etc.
		Dehydrated product:
	151	Presence of incomplete dehydration such as wet or soft spots.
	152	Presence of glazed areas more than 1/2 inch (12.7 mm) in any dimensions. 2/ Glazed areas caused by surface blood shall not be considered a defect.

TABLE VI. Examination of pork slices for physical requirements 1/ 4/ (cont'd)

Category		Defect
Major A	Major B	
		Dehydrated product: (cont'd)
	153	Presence of dark-colored cores in any dimension.
	154	Less than 95 percent of can contents consist of whole slices. 3/

1/ Finding of one or more Major A defects shall be cause for rejection of the lot.

2/ Report all linear dimensions to the nearest 1/16-inch (2 mm).

3/ Report percent to the nearest whole number.

4/ The sample unit shall be five chops from each container except that for defect 154 the sample unit shall be the entire contents of the can.

TABLE VII. Examination for rehydrated product characteristics 1/ 2/

Category		Defect
Major A	Major B	
101		Presence of foreign or undesirable flavor or odor.
	151	After rehydration (see 3.4.1, item 6) and grilling 1-1/2 minutes per side on a 375°F (204° C) grill, chop does not have flavor, odor or texture considered normal for grilled frozen pork chop, or product not equal to or better than the first article sample.
	152	After grilling and cutting twice at right angles, the cross sections show unrehydrated spots larger than 1/8 inch (3 mm) in any dimension. (See 3.5.1, item 7). 3/

1/ Finding of a Major A defect shall be cause for rejection of the lot.

2/ For the purpose of this examination, only 1 slice per sample unit shall be rehydrated.

3/ Report measurements to the nearest 1/16-inch (1.6 mm). Dry or callous-like areas attributable to gristle, gelatinous material and connective tissues in the chop shall not be considered as defects.

4.5.5.1 External examination of the primary container. Examination of the primary container shall be in accordance with the examination criteria of PPP-C-29.

4.5.5.2 Examination of can labeling. Examination of can labeling shall be in accordance with the examination criteria of MIL-L-1497.

4.5.5.3 Examination of exterior can coating. Examination of exterior can coating shall be in accordance with the examination criteria for type I of TT-C-495.

4.5.5.4 Examination of shipping containers. Examination of the filled and closed shipping containers for levels A, B, and C pack shall be in accordance with the examination criteria contained in the appendix to PPP-B-636. In addition, the following defects shall be included in the table of examination; Major: Marking missing, incorrect or illegible. Minor: Arrangement not as specified. For level B pack, when applicable, shipping containers reinforced with other than non-metallic strapping or pressure-sensitive adhesive, filament reinforced tape shall not be acceptable. When packing for level C is required to be in accordance with 5.2.3, examination shall be in accordance with the aforementioned specification except that only the defects for marking and arrangement shall apply.

4.5.5.5 Examination of unit loads. Examination of unit loads shall be in accordance with the examination criteria of MIL-L-35078.

4.5.6 Sampling procedures and acceptance criteria for testing of the finished product. The finished product (dehydrated form) shall be tested for moisture and oxygen in accordance with the requirements of 3.5.2. Procedures for testing shall be as specified in 4.7. The sample unit for testing shall be one filled and sealed primary container. Lot size shall be expressed in terms of primary containers, and the sample size shall be the number of sample units indicated by inspection level S-2. The AQL, expressed as percent defective for each characteristic, shall be 1.5. A nonconformance to a test requirement shall be scored as a defect. Results shall be reported to the nearest 0.1 percent.

4.6 First article inspection. First article samples of the product which the supplier intends to furnish shall be inspected to assure compliance with 3.5.

4.7 Examination and test methods. Examination and test procedures which differ from those specified herein, unless otherwise excepted, may be used by the supplier if they provide a quality assurance equivalent to that specified. If the Government contracting officer determines that such procedures and controls do not provide, as a minimum such quality assurance, the supplier will use the procedures set forth herein. In case of dispute as to examination or test results, the procedures specified herein will govern.

4.7.1 Examination procedures.

4.7.1.1 Leakage. The filled and sealed can shall be examined for leakage in accordance with PPP-C-29.

4.7.2 Test procedures.

4.7.2.1 Oxygen. Oxygen in the headspace gas shall be determined in accordance with Standards for Grades of Dry Milks Including Methods of Analysis, Bulletin 916. A 500-ml. flask may be used in doing the moisture analysis.

4.7.2.1.1 Moisture. Moisture in the product shall be determined in accordance with the Official Methods of Analysis of the Association of Analytical Chemists; Chapter: Meat and Meat Products; Section: Meat; Method: except that the temperature, time cycle shall be modified so that the oven temperature shall be 70°C (21.1°C) for 16 hours under a pressure of 100 mm pressure of Hg (13.32 kPa).

4.7.2.2 Tin coating weight. Tin coating weight shall be determined by any method specified in PPP-C-96.

5. PACKAGING

5.1 Preservation (Level A or C). The product shall be packaged in accordance with level A or C as specified (see 6.1)..

5.1.1 Level A. A net weight of 20 ounces (560 g) of the product shall be filled into a size 603 by 700 open-top style, round metal can with soldered side seam and compound-lined, double seamed ends. A minus 3/4-ounce (21 g) tolerance will be allowed in any one container provided the average net weight of the cans inspected in accordance with table V is not less than 20 ounces (560 g). The can shall be made throughout from not less than commercial 0.25-pound electrolytic tin plate per base box (see 4.7.2.2) and shall be coated outside with a coating conforming to type I of TT-C-495. The filled can shall be sealed under an atmosphere of nitrogen. The filled and sealed can shall not show evidence of leakage when tested in accordance with 4.7.1.1.

5.1.2 Level C. The product shall be packaged in accordance with 5.1.1 except that cans with or without commercial exterior coating are acceptable.

5.2 Packing. Six 603 by 700 size cans of the dehydrated pork chops arranged 3 by 2 by 1, shall be packed in a snug fitting shipping container in accordance with Level A, B or C as specified (see 6.1).

5.2.1 Level A. The shipping container shall be a fiberboard box, constructed, closed, and reinforced in accordance with style RSC, V2s, of PPP-B-636.

5.2.2 Level B. The shipping container shall be a fiberboard box, constructed, closed and reinforced in accordance with style RSC, W5c, or W5s, of PPP-B-636.

5.2.2.1 Reinforcement of shipping container. When specified (see 6.1 and 6.3), the shipping container specified in 5.2.2 shall be reinforced with nonmetallic strapping or pressure-sensitive adhesive, filament reinforced tape in accordance with the appendix of PPP-B-636.

5.2.3 Level C. The shipping container shall be in accordance with the Uniform Freight Classification or National Motor Freight Classification, as applicable.

5.3 Unit loads. When specified (see 6.1) the product as specified in 5.2 shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified.

5.4 Labeling and marking.

5.4.1 Cans. Cans shall be labeled in accordance with MIL-L-1497 and as follows:

PORK CHOPS, DEHYDRATED, UNCOOKED

Net weight

Name of processor

Date of packaging (day-month-year)

Lot No. (concurrent with dehydration load)

THIS PRODUCT IS GAS PACKED

Directions for use

Rehydrate the chops as soon as can is opened. Cover chops with lukewarm (90-100°F) salted water (1 teaspoon salt per quart of water). Soak 20 minutes or untill all portions are soft. Drain. If possible, cover and place chops in refrigerator over-night to equilibrate moisture.

Mix 5 oz (1-1/4 cup) sifted flour and 1 teaspoon salt. Dredge rehydrated pork chops in flour mixture; shake off excess.

Use 4 oz (1/2 cup) melted shortening. Brown chops in shallow fat about 1-1/2 minutes per side on 375°F griddle.

Place in 1/2 steam table pan. Pour 1 quart gravy or tomato sauce over pork chops. Cover and bake in 350°F oven 1-1/2 hours.

NOTE: Use 1 pound of dehydrated product for 3 pounds fresh, boned pork chops.

5.4.2 Shipping containers. Shipping containers shall be marked in accordance with MIL-STD-129.

5.4.3 Unit loads. Unit loads shall be marked in accordance with MIL-L-35078.

6. NOTES

6.1 Ordering data. Procurement documents should specify the following:

(a) Title, number and date of this specification.
(b) When a first article is required (see 3.1).
(c) Levels of packaging and packing required (see 5.1 and 5.2).
(d) When packing specified in 5.2.2.1 is required (see 6.3).
(e) Type and class of unit load when unit loading is specified (see 5.3).

6.2 Level of pack. Based on conditions known or expected to be encountered during shipment, handling, and storage of the specific item being procured, the contracting officer should select the appropriate level of pack in accordance with the criteria established in AR 700-15/NAVSUPINST 4030.28 AFR 71-6/MCO 4030.14D/ DSAR 4145.7.

6.3 Conditions for reinforcement of shipping container. Packing specified in 5.2.2.1 is intended for transfer at sea operations and specific overseas operations.

6.4 Changes from previous issue. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and suppliers are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

6.5 Award of contract. Award of contract for the product specified in this document shall be limited to plants known to maintain the required sanitation conditions of 3.6 (also see 4.3).

6.6 First article inspection. When a first article is required it shall be inspected and approved under the appropriate provisions of ASPR 7-104.55. The first article will be a preproduction sample and should consist of 12 cans. The contracting officer should include specific instructions in all procurement instruments regarding arrangements for inspection and approval of the first article.

6.7 Metric equivalents. Metric equivalents, indicated in parentheses throughout this document, are based on practices, conversion factors, and symbols specified in ASTM E 380 Standard for Metric Practice, and are for information only. In each instance, the value stated in US customary units shall be controlling.

Custodians:

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Navy - SA
Air Force - 50

Preparing activity:

Army - GL

Project No. 8905-0937

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DOCUMENT IDENTIFIER *(Number)* AND TITLE

MIL-P-43144E - Pork Chops, Dehydrated, Uncooked

NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER

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