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TECHNOLOGY INCORPORATED

LIFE SCIENCES DIVISION

FINAL REPORT

DESIGN AND DEVELOPMENT OF A MEAL
SYSTEM FOR THE ELDERLY

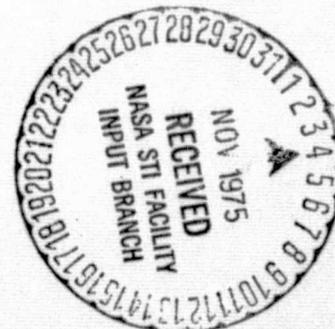
Contract No. NAS-9-14672

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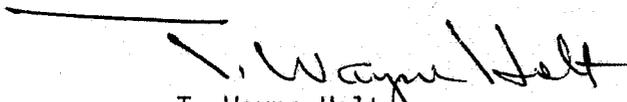
FINAL REPORT

DESIGN AND DEVELOPMENT OF A MEAL
SYSTEM FOR THE ELDERLY

Contract No. NAS-9-14672

15 September 1975

Approved by:


T. Wayne Holt
Vice President and
General Manager

DESIGN AND DEVELOPMENT OF A MEAL
SYSTEM FOR THE ELDERLY

1.0 INTRODUCTION

This final report is submitted in compliance with Contractual Agreement NÁS 9-14672 and covers the period 18 April - 15 July, 1975. The prime objective of this contractual agreement was to conduct research in the design and development of a meal system for the elderly in accordance with the general guidelines of Phase One, Systems Development of the Implementation Plan for Meal Systems for the Elderly, Technology Application Task SRI-116 dated March 14, 1975. The ultimate objective of application Task SRI-116, is the implementation of a shelf stable, nutritious, convenient meal system, packaged in a manner in which it can be easily transported, stored, and prepared for consumption with minimal effort by the elderly.

2.0 WORK ACCOMPLISHED

2.1 Preference and Attitude Survey

The purpose of the Preference and Attitude Survey was to interview elderly citizens to obtain information about their food preferences and physical disabilities. The prime objectives of the Preference and Attitude Survey were to determine (1) elderly food preferences and eating habits, (2) dietary restrictions which might impact menu design, (3) potential problems associated with meal preparation,

(4) physical disabilities and related problems, and (5) elderly views on nutrition as related to food.

A questionnaire composed of thirty-four (34) detailed questions was administered to one hundred (100) elderly representing both the rural and urban population. The general conclusions of the survey was that food attitudes and preferences among the elderly tend to be very heterogeneous. However, fruit juices were among the favorite responses for beverage selection. Quite understandably, a meal program available at a low or no cost to the elderly would have a much greater acceptability than alternate programs. Within the normal range of diets, a bland low-sodium diet was preferable to elderly persons. Menus should be geared to meet with general acceptance by a majority of elderly served with some consideration to ethnic and regional locations.

2.2 Food Selection and Taste Tests

Prior to organoleptic evaluation, potential food processes and food items were surveyed to determine their technical application to the meal program. Thermostabilized, freeze-dried, dehydrated, intermediate moisture and natural foods were included in the survey. Factors which were used to determine if certain food items were to be used included weight, stability, package versatility, ease of preparation, production costs, product nutrition, and compatibility with design objectives. An adequate shelf-life for such a meal

system is critical. All thermostabilized foods were required to have a shelf-life of two (2) years when stored at temperatures between 40 and 70°F. All rehydratable and wafer-type foods were required to have a shelf-life of at least one (1) year when stored at temperatures between 40 and 70°F.

Food items were obtained from NASA/JSC, U. S. Army Natick Development Center and sub-contractors. NASA has excellent expertise in the development of food systems for space flight as evidenced in the Mercury, Gemini, Apollo, Skylab and ASTP Programs. The U. S. Army Development Center has vast knowledge of developing military feeding systems which must meet exacting and unique criteria. In addition they have supported NASA food development efforts. Sub-contractors or commercial companies operate in a competitive market and are able to provide current information and products which were useful in developing a meal system for the elderly.

2.2.1 Technical Taste Test

A technical taste test was conducted to screen all foods which promised to lend technical application to the meal system. The technical taste test was administered with these ultimate objectives of prime concern: (1) elimination of duplicate foods within a given food process, selecting only the superior item. (2) selection of only acceptable food items (3) development of a selected food list for preliminary menu design and the user taste test. The

technical taste test panel was composed of five (5) to seven (7) individuals trained in sensory evaluation. A total of one hundred forty-nine (149) different food items were evaluated over a three week period. The panel utilized a 9-point hedonic scale (9 being optimum) in determining acceptability of food items (Figure 1). Only food items receiving a rating of 5.0 or above were considered acceptable. Ninety-six (96) foods received ratings of 5.0 or above; of these, fifty (50) were thermostabilized, twenty (20) were freeze-dried, twenty (20) were dehydrated, and six (6) were either natural or intermediate moisture food items.

2.2.2 User Taste Test

The purpose of the user taste test was to obtain food preference ratings so that only acceptable food items would be included from the candidate food list.

FIGURE 1

FOOD EVALUATION RECORD

Name: _____

Date: _____

Food Rating:

Please enter each item eaten. Indicate your preference in the second column using the rating numbers given below. Then if there was a reason why you particularly liked or disliked a food, briefly comment in the third column.

Ratings

- 9 - Like extremely
- 8 - Like very much
- 7 - Like moderately
- 6 - Like slightly
- 5 - Neither like nor dislike
- 4 - Dislike slightly
- 3 - Dislike moderately
- 2 - Dislike very much
- 1 - Dislike extremely

<u>Item</u>	<u>Rating</u>	<u>Comments-Reason(s) for Liking or Disliking</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____
11. _____	_____	_____
12. _____	_____	_____

Final menu selection was then based on this final food list. Also a cursory packaging introduction to the elderly was examined.

The participants in the User Taste Test were individuals sixty (60) years of age or older. None of the participants were involved in a meal program. The total sample consisted of seventy (70) subjects who participated at least once, with about ten (10) per cent of the sample participating the maximum number of testing periods. There were fifty-five (55) females and fifteen (15) males, fifty-six (56) were black and fourteen (14) white.

The participants were informed at the time of recruitment as to the purpose of the testing and were given a brief description of the testing method.

The testing locations were at the Newman Center in Prairie View, Texas (2 days) and at the County Court House in Hempstead, Texas (3 days). Both locations are in Waller County, Texas.

The ninety-six (96) foods selected by the technical taste panel were evaluated in the User Taste Test Plan over a five-day period.

Products were assigned numbers prior to evaluation. Numbers 1-48 were tested on day 1, products numbered 49-96 were tested on day 2, 1-48 were again tested on day 3 and 49-96 tested on day 4, foods 1-88 were tested on day five. The last 8 items were in short supply

and consequently were not tested on day 5. Each participant tested 12 different foods each day. Numbers were assigned to identify each participant. A 5-point hedonic rating form was used in food evaluation (Figure 2). Placemats with the designated product numbers and participant number were placed in front of each participant. Foods were prepared and placed in small serving containers with numbers corresponding to those on the placemats.

Each of the ninety-six (96) foods were evaluated between sixteen (16) and twenty-six (26) times. No single food was evaluated more than twice by the same participant. Each of the seventy (70) participants evaluated between 12 and 60 foods over the 5-day period. The number of elderly who participated on each of the five days were as follows: Day 1 -- 40 subjects, Day 2 -- 24 subjects, Day 3 -- 32 subjects, Day 4 -- 35 subjects, and Day 5 -- 22 subjects.

Of the ninety-six (96) foods tested, ninety-five (95) were found acceptable by the elderly. Foods were acceptable if they received an overall acceptance rating of 5.0 or above. This appears to indicate that the technical taste panel results are highly correlated in predicting acceptance of food by elderly citizens. No definite conclusions could be reached as far as cursory package introduction was concerned; only that packaging which the elderly were familiar with provided less difficulty in opening and handling. It is anticipated that advanced packaging techniques and materials

FIGURE 2

TASTE EVALUATION TEST

PRODUCT _____

DATE _____

Participants: Number _____
 Age _____
 Sex _____
 Race _____

Please check the blocks you feel best indicate your likes or dislikes.

Appearance					
Color					
Odor					
Flavor					
Texture					
Overall Acceptability					
Scale	Like Extremely	Like very Moderately	Neither like nor Dislike	Dislike Moderately	Dislike Extremely

Can you eat this type food? Yes _____ No _____

If not why? _____

Comments: _____

May require user education for successful implementation.

2.3 Menu Design

All menus were designed to provide at least one-third (1/3) of the daily recommended dietary allowance for the male population, group age fifty-one (51) and above as established in January, 1974 by the Food and Nutrition Board of the National Research Council, National Academy of Sciences. The nutritional composition of foods were determined by using data from Composition of Foods (Agriculture Handbook #8) and from nutritional data provided from food manufacturers. No special diets for reasons of health or ethnicity were developed. Menus were designed to provide acceptable meals, compatible with program objectives, to the elderly. Many factors were considered when combining food items into an acceptable meal. Food color and compatibility of different items were some of the attributes considered.

Foods from ninety-five (95) items selected by the user taste test were used to develop twenty-one (21) menus. Each menu contains an entree, two (2) side dishes, dessert and a beverage. The twenty-one (21) menus developed are composed of twelve (12) which contain primarily thermostabilized "canned" items, six (6) of which are freeze-dried and dehydrated, and three (3) which contain primarily the thermostabilized "retortable pouch." Each menu is numbered and intended to be used in a twenty-one day menu cycle (see Appendix I).

2.4 Food Manufacturing Specifications

Thirty-two (32) Food Manufacturing Specifications for food items utilized in the twenty-one (21) day menu cycle were developed. Some Food Manufacturing Specifications include more than one food item. Food specifications developed by the U. S. Army Natick Development Center for specified foods have been included in Limited Procurement and Production Descriptions (see Appendix II). Suggested suppliers and/or processors for each menu item with price quotations per serving are listed in Appendix III.

2.5 Labeling

Labels for primary food packages were developed and include all required information. For example: (1) product name, (2) preparation information, (3) net weight, (4) ingredients and (5) manufacturer or distributor. See Figure 3 through 7 for examples of labels developed for each type of primary packaging utilized in the meal program. Labels are off-set printed on glossy pressure sensitive paper. All labels are printed with blue lettering on a white background.

Secondary packaging (meal container) labels are of two types, either directly on the meal container or pressure sensitive. The labeling for the meal container (Figure 8) is printed directly on the top side lid utilizing off-set printing. Lettering and illustrations are blue on a white background except for the NASA logo

and the italicized first letters of the words NASA are in red. The label for meal contents is on glossy pressure sensitive paper and measures two inches by three inches. Lettering is black on a white background. Meals are identified by meal numbers affixed to the side panels of each meal container. Figure 9 illustrates the 1-1/2 inch by 3 inch glossy pressure sensitive label with black lettering on a white background.

General preparation instructions placed on the inside top lid of the meal container are printed in both English and Spanish. The glossy pressure sensitive labels illustrate graphically how the meal is to be prepared. Labels are prepared for thermostabilized canned foods (Figure 10) and for freeze-dried and dehydrated foods (Figure 11). These labels measure 7 inches by 11 inches and are printed with blue lettering and black illustrations on a white background.

2.6 Packaging

One of the prime objectives in the elderly meal system development was packaging design. In pursuing this effort the contractor considered and utilized appropriate food packaging technology for manned space flight as well as current technology developed for the general food consumer. The following key points were considered in the development of packaging designs: (1) protection of the food from the standpoint of food safety (2) maximize shelf-life of the product (3) convenience of packaging for the consumer (4) ease in transportation and (5) appeal and aesthetics toward the consumer.

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Houston, Texas
NOT FOR SALE

BEEF STEW

HEATING INSTRUCTIONS:

1. Place contents in saucepan over very low heat.
2. Stir frequently.
3. Serve.

NET WT. 7½ OZ.

INGREDIENTS:

Gravy (water, tomatoes, corn starch, salt, hydrolyzed plant protein, flavorings, caramel color, and monosodium glutamate), beef, soaked dehydrated potatoes, soaked dehydrated carrots and soaked dried peas.

Figure 3. Labeling for 208 x 207 Cans

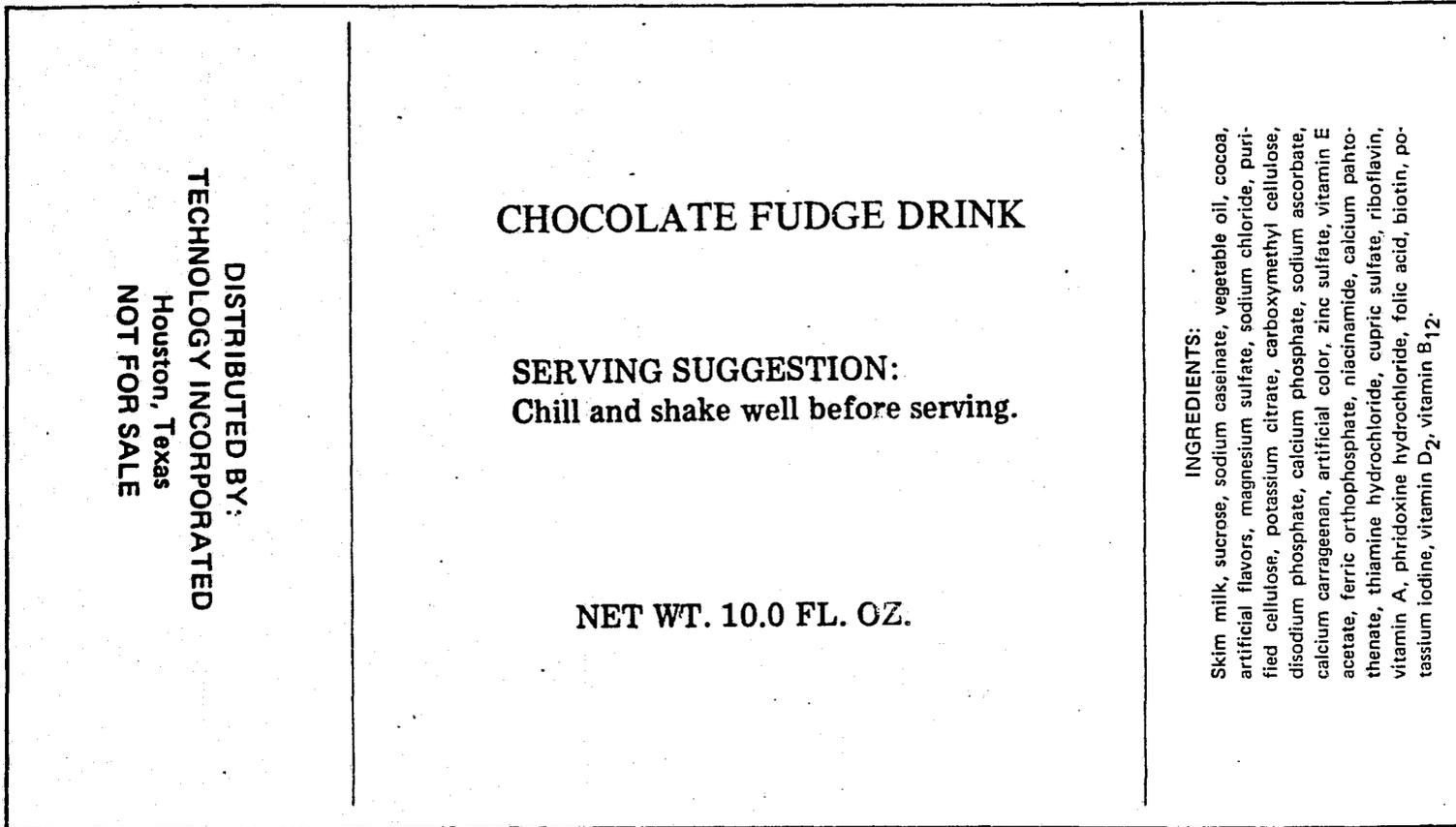


Figure 4. Labeling for 205 x 408 Cans

<p>DISTRIBUTED BY: TECHNOLOGY INCORPORATED Houston, Texas NOT FOR SALE</p>	<p>MIXED FRUIT</p> <p>DIRECTIONS: 1. Open container. 2. Serve and eat directly from container.</p> <p>NET WT. 5.0 OZ.</p>	<p>INGREDIENTS: Diced peaches, diced pears, wa- ter, sugar, diced pineapple, corn syrup, ascorbic acid added to preserve color.</p>
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Figure 5. Labeling for 208 x 203 Cans

**LEMON INSTANT
PUDDING
ARTIFICIAL FLAVOR**

SERVING INSTRUCTIONS:

1. Pour $\frac{1}{2}$ cup cold water into bowl.
2. Open package and slowly add contents while stirring.
3. Stir until well blended, about 2 minutes.
4. Pudding will soft-set and ready to eat in a few minutes.

NET WT. 1.3 OZ

INGREDIENTS:

Lemon Instant Pudding and Pie Filling (sugar, dextrose, modified tapioca starch, sodium phosphates, natural flavors, hydrogenated vegetable oil, mono and diglycerides, nonfat dry milk, artificial color, BHA) Nonfat Dry Milk fortified with vitamins A and D.

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Figure 6. Labeling for Foil Laminate or Retortable Flexible Primary Packages Measuring 4-1/2 Inches by 7 Inches or Larger

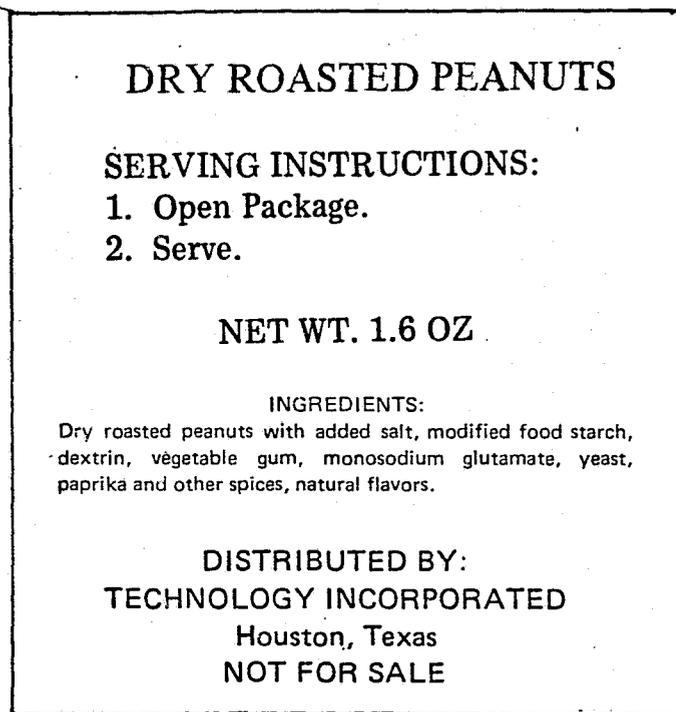
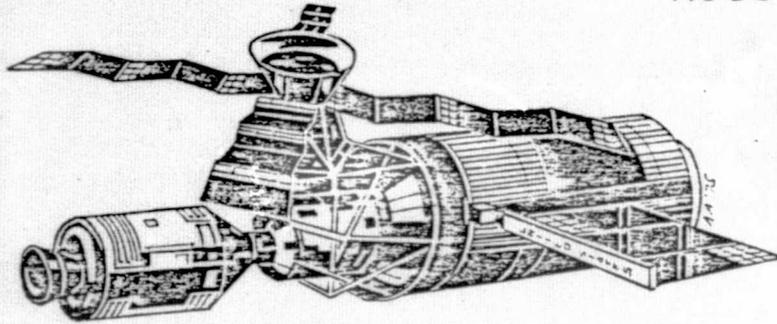


Figure 7. Labeling for Foil Laminate Primary Packages Measuring 4-1/2 Inches x 4-1/2 Inches

NATIONAL AERONAUTICS & SPACE ADMINISTRATION
LYNDON B. JOHNSON SPACE CENTER
HOUSTON, TEXAS



NASA



TECHNOLOGY UTILIZATION PROGRAM

Meal System For The Elderly

DISTRIBUTED BY
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HOUSTON, TEXAS

MEAL CONTAINS:
BEEF STEW
CREAM STYLE CORN
MIXED FRUIT
ALMONDS
DUTCH CHOCOLATE DRINK
NET WT. 29.0 OUNCES

Figure 8. Printing and Illustrations for Top Lid Side of Meal Container

ORIGINAL PAGE IS
OF POOR QUALITY

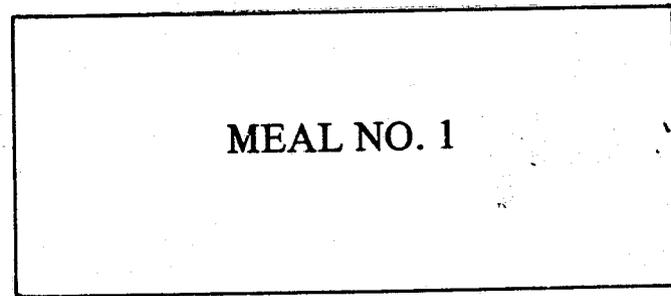
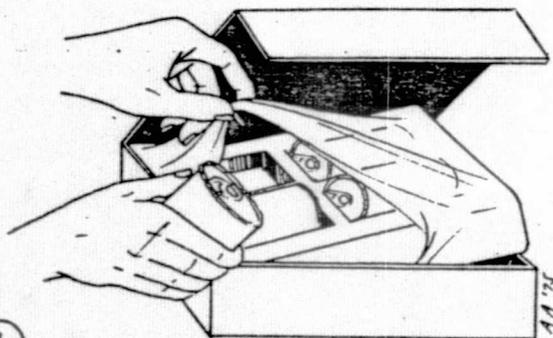


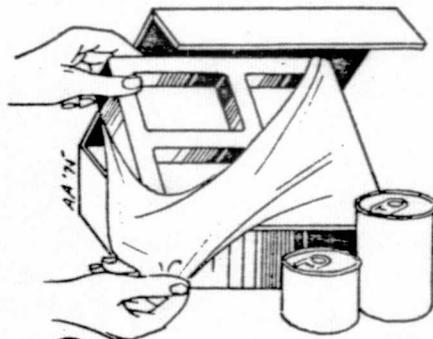
Figure 9. Meal Number Identification

PREPARATION INSTRUCTIONS INSTRUCCIONES DE PREPARACIÓN



①

REMOVE PLASTIC AND FOOD PACKAGES.
QUITE EL PLÁSTICO Y SAQUE LOS
PAQUETES.



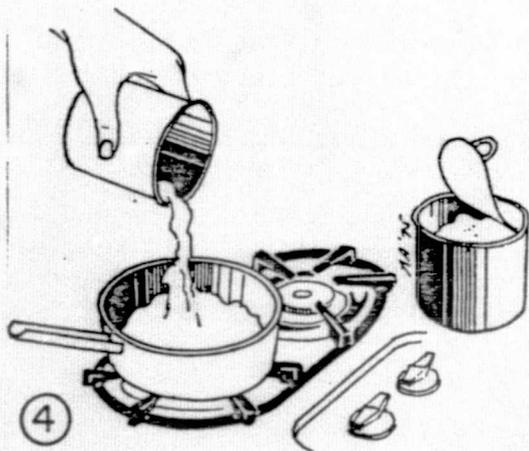
②

REMOVE PLASTIC FROM
FOOD TRAY.
QUITE EL PLÁSTICO DE
LA BANDEJA.



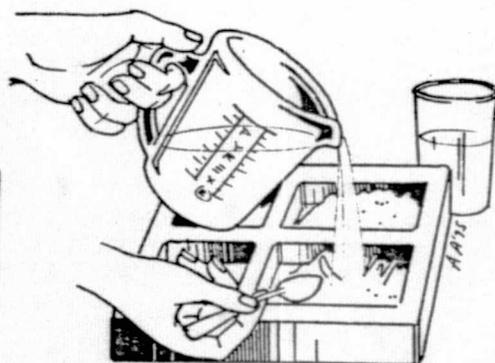
③

OPEN CANS.
ABRA LAS LATAS.



④

PREPARE AS INDICATED ON FOOD PACKAGE.
PREPARE DE ACUERDO CON LAS INSTRUCCIONES
EN CADA PAQUETE.



⑤

PLACE FOOD IN TRAY, READY TO EAT.
PONGA LOS ALIMENTOS EN LA
BANDEJA. LISTO PARA COMER.

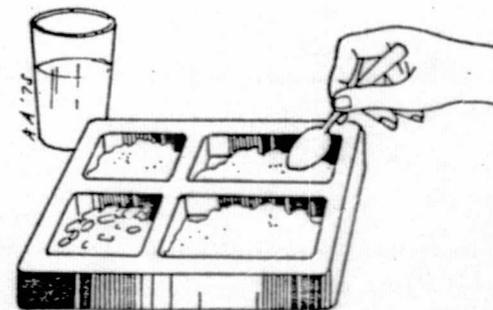
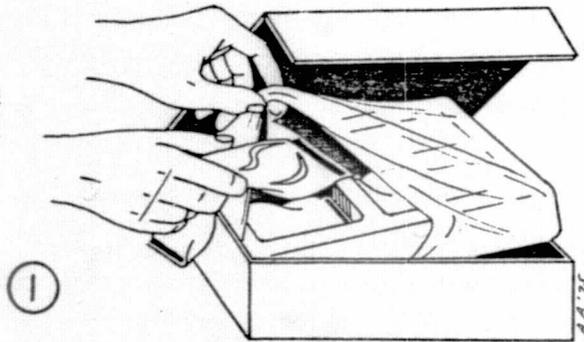
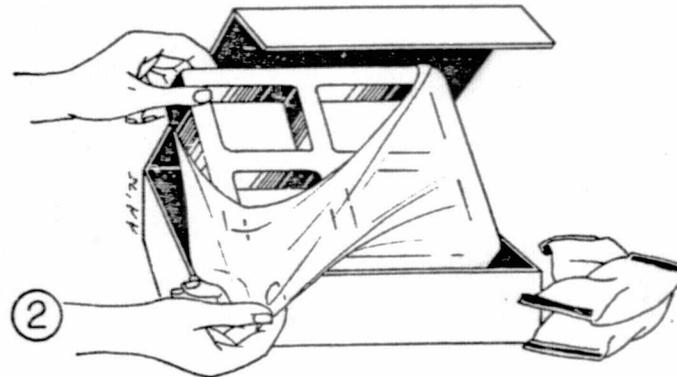


Figure 10. Preparation Instructions Located on the Inside Top Lid of the Meal Container for Thermostabilized Canned Foods

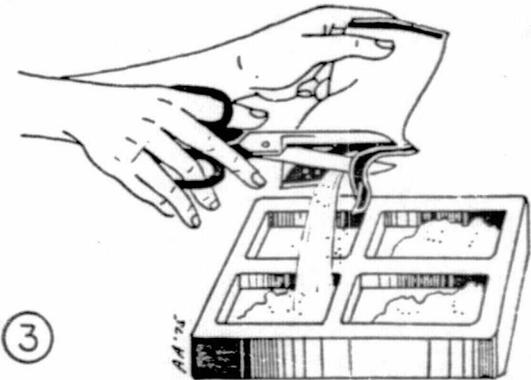
PREPARATION INSTRUCTIONS INSTRUCCIONES DE PREPARACIÓN



① REMOVE PLASTIC AND FOOD PACKAGES.
QUITE EL PLÁSTICO Y SAQUE LOS
PAQUETES.



② REMOVE PLASTIC COVER FROM
FOOD TRAY.
QUITE EL PLÁSTICO DE LA
BANDEJA.



③ EMPTY FOOD PACKAGES INTO TRAY.
PONGA LOS ALIMENTOS EN LA
BANDEJA.



④ EMPTY DRINK POWDER INTO
LARGE GLASS.
ECHE EN UN VASO GRANDE TODA
LA BEBIDA EN POLVO.



⑤ ADD HOT OR COLD WATER (INDICATED ON
FOOD PACKAGE) AND MIX WELL.
ECHE AGUA (CALIENTE O HELADA) DE
ACUERDO CON LAS INDICACIONES EN
CADA PAQUETE Y MÉZCLELOS BIEN.

⑥ WAIT 5 MINUTES. NO
COOKING REQUIRED.
READY TO EAT.
ESPERESE 5 MINUTOS.
NO SE NECESITA COCER.
LISTO PARA COMER.

Figure 11. Preparation Instructions Located on the Inside Top Lid of the Meal Container for Freeze-Dried and Dehydrated Foods

Packaging design consisted of primary packaging, secondary packaging, multi-day meal packaging and meal tray development. Primary packages are those which physically contact the food. Secondary packages are those packaging components which group primary packages into meal units. The meal tray can be considered a component of secondary packaging. The multi-day meal package is defined as that container which allows meals to be packaged into multiple meal units.

2.6.1 Primary Packaging

Primary packaging involves basically three (3) types of packaging systems. The first system is composed of rigid cans including either tin plated steel (bi-metallic) or drawn aluminum cans for foods which are thermostabilized. The second system involves foil laminate packages for freeze-dried, dehydrated and intermediate moisture foods. The third system which is used for thermostabilized foods is the retortable flexible pouch. Requirements for each type package are specified in the following sections.

2.6.1.1 Rigid Cans

Rigid cans have wide product compatibility and have met with great success in the food industry based on the extensive use of this method of preserving food. Therefore, this technique offers great stability for use in an elderly meals feeding system.

Tin plated steel (bi-metallic) cans are three piece constructed with a soldered side body seam. Closures are developed by a roll and crimp seal. The top lid is constructed of a full panel pull-out lid or tab. Inner coatings vary widely from product to product and each type of food requires a specific type coating. Manufacturers and food processors work closely to see that these criteria are met. Specific requirements and drawing specifications are included in NASA/JSC Drawing Files for Bi-Metallic Can Drawing Number SEB 39106344.

Drawn aluminum cans are two piece constructed with a drawn body and a full panel pull out lid. Closures are similar to bi-metallic cans. Specific requirements and drawing specifications are included in NASA/JSC Drawing Files for Drawn Aluminum Cans Drawing Number SEF 48100076. These drawings are applicable for can dimensions only and all labeling as specified by these drawings is not applicable.

2.6.1.2 Foil Laminate Pouches

Foil laminate pouches are designed for use with freeze-dried, dehydrated and intermediate moisture foods. The materials used to form the pouches provides an oxygen impermeable barrier between the food and outside atmosphere. The material is capable of holding a vacuum when vacuum sealed. The pouch material is a laminate of .005 inch polyester, .0035 inch foil, and either .001 inch of polyethylene or surlyn material. Individual package configurations are illustrated in Figures 12 - 15.

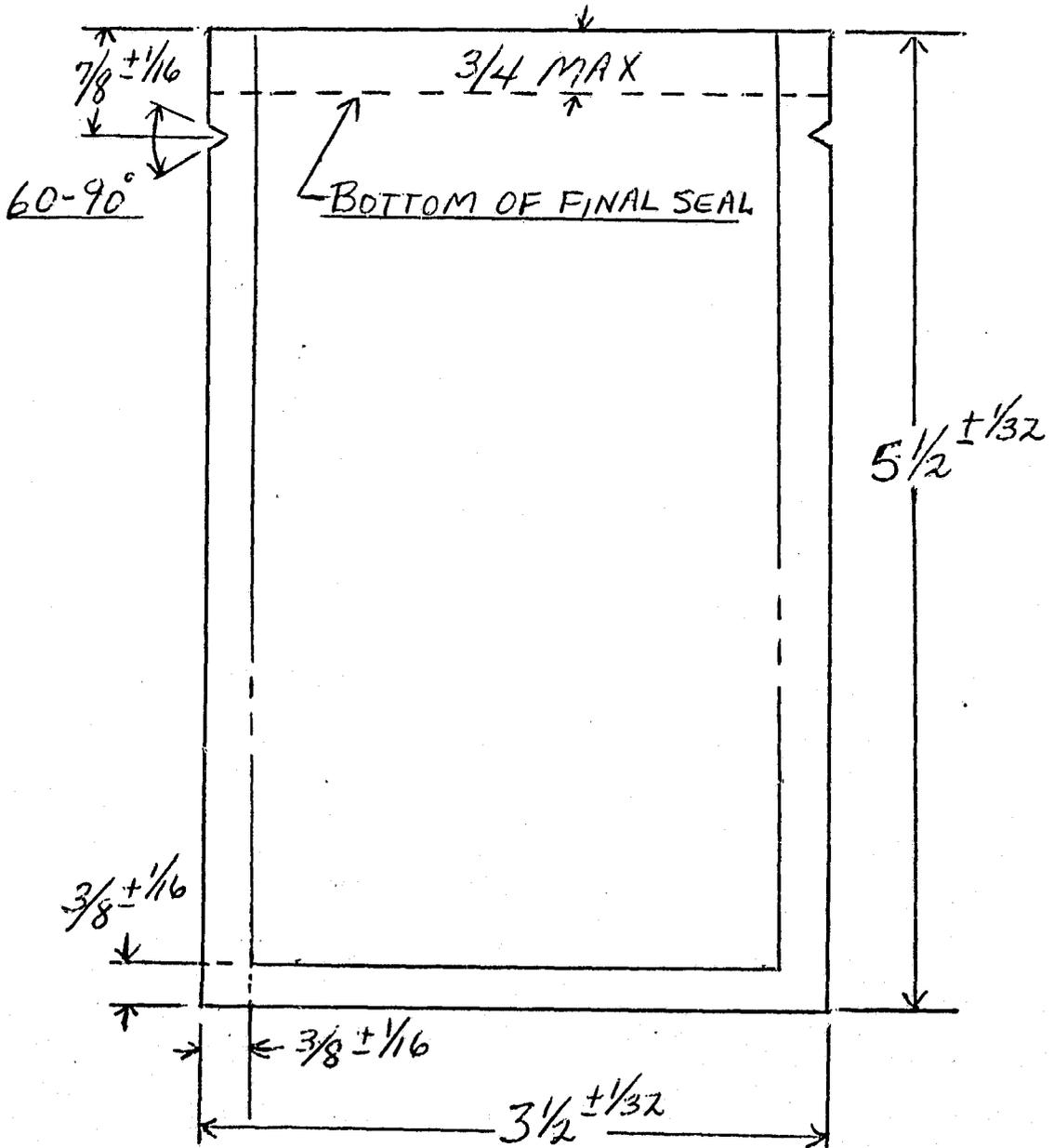


Figure 12. Foil Laminate Pouch For
Dessert Bars.

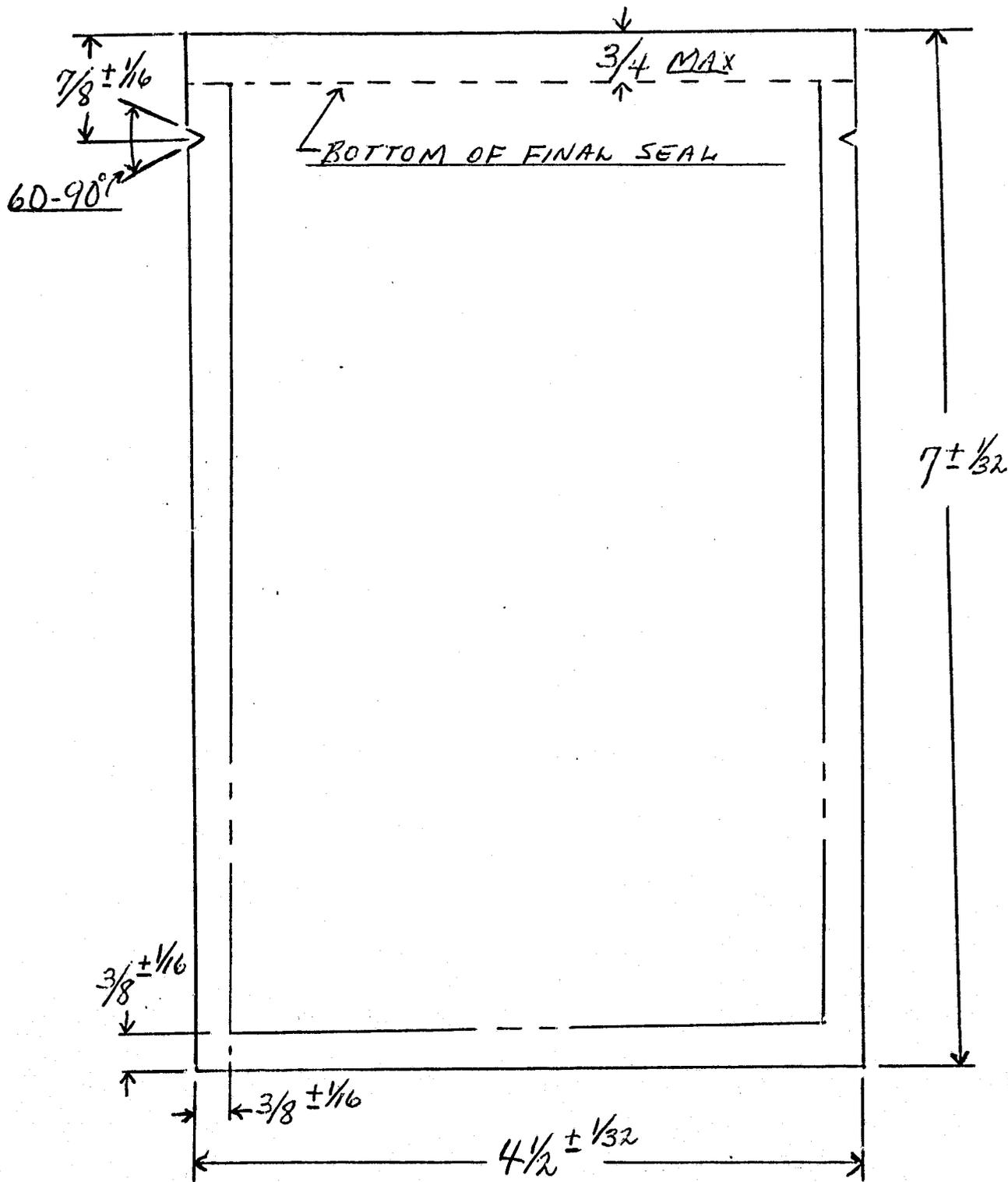


Figure 13. Foil Laminate Pouch for Dehydrated Drinks and Puddings.

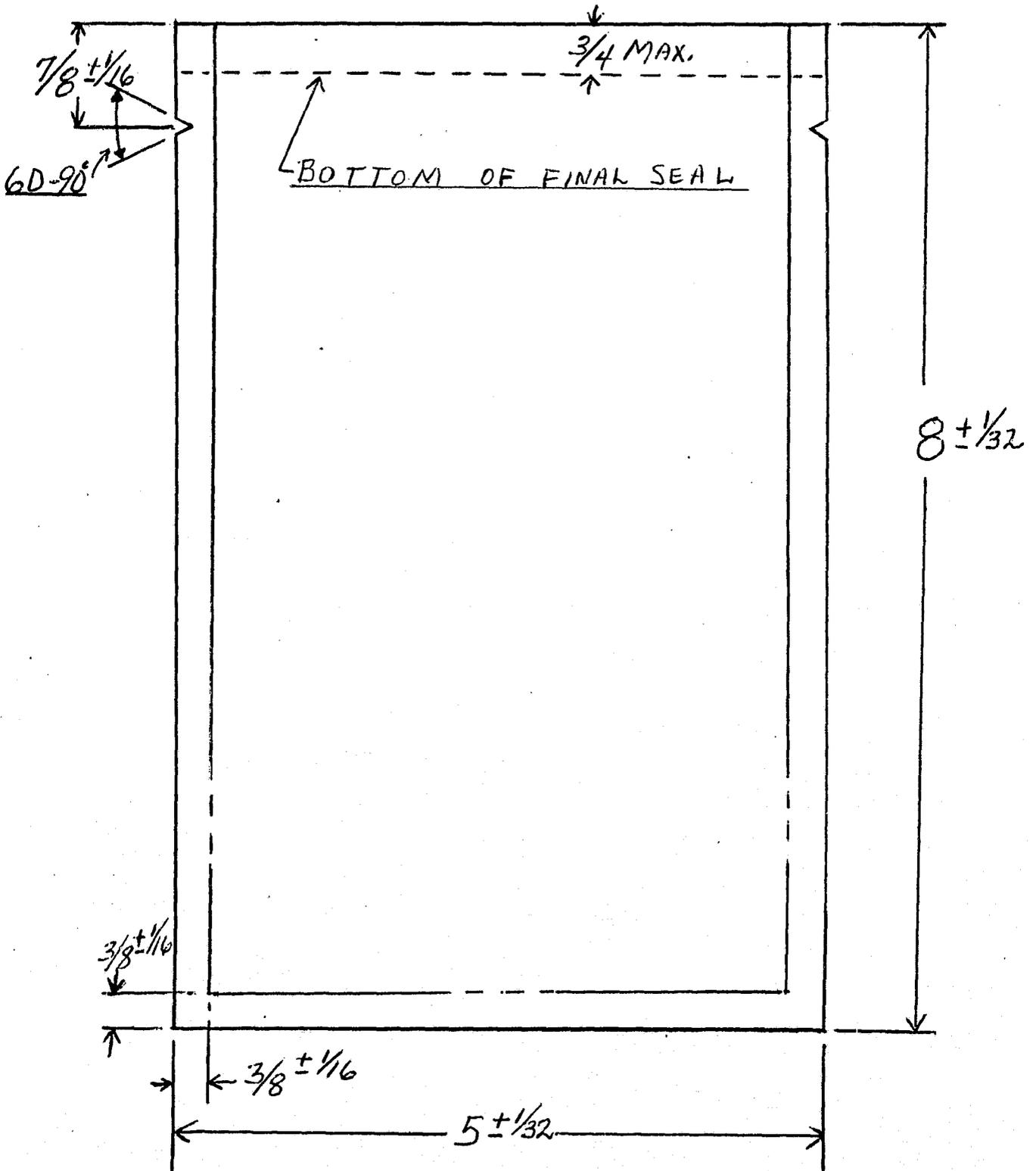


Figure 14. Foil Laminate Pouch for Freeze Dried Foods

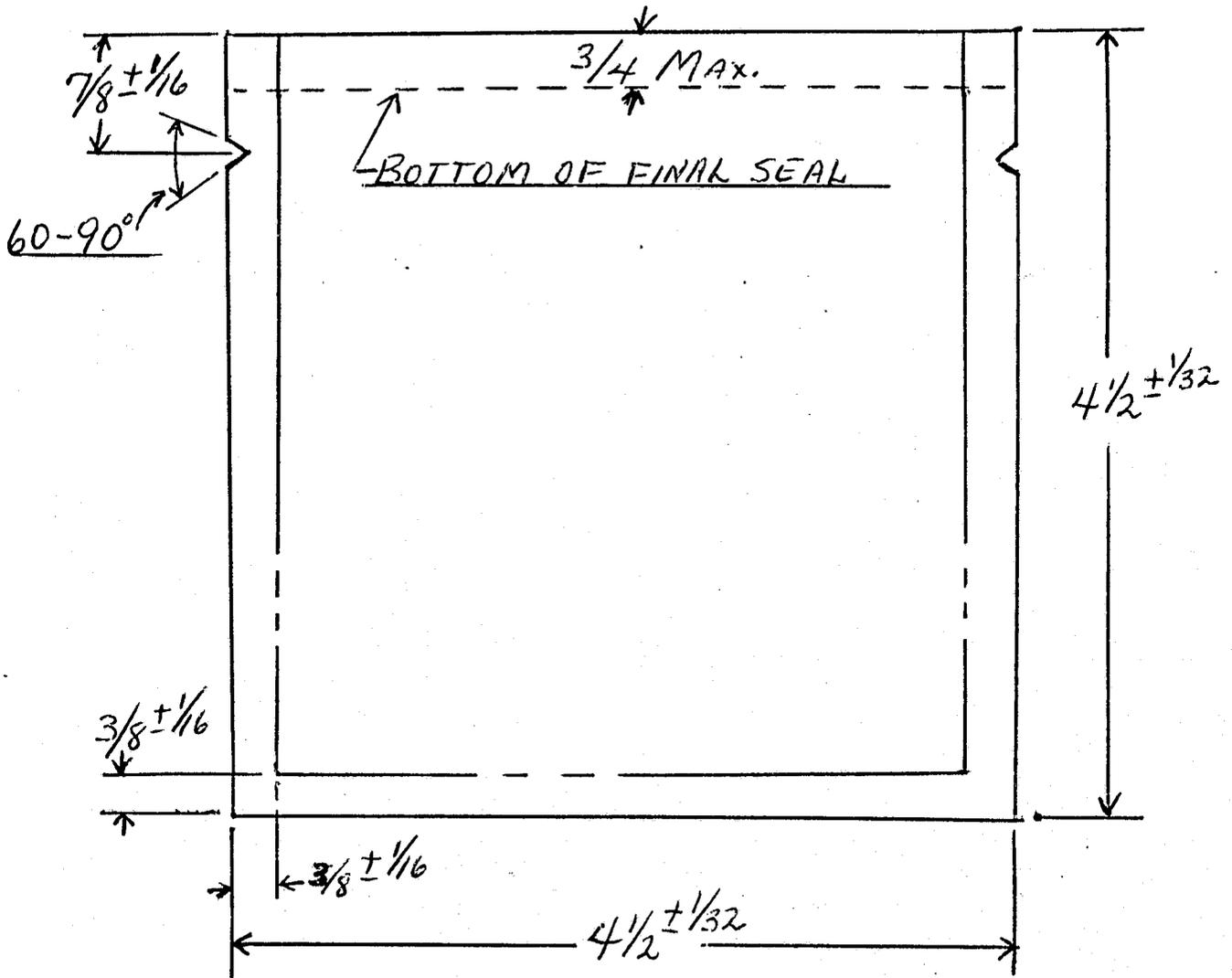


Figure 15. Foil Laminate Pouch For
 Dehydrated Soups, Nuts and
 Some Dehydrated Drinks.

2.6.1.3 Retortable Flexible Pouches

During the past decade retortable flexible packaging have demonstrated great potential as a food packaging system. The U.S. Army Natick Development Center has tested the system extensively along with many foreign food companies and all have met with success. The U. S. commercial food industry is in the development of launching the new packaging system into the U. S. market.

The requirements for packaging food items into heat-sealed flexible pouches, thermoprocessing the filled and sealed pouches, and packaging into shipping containers for shipment to the meal assembler are included in LP-P DES 32-74, The above document is a Limited Production and Purchase Description for Packaging, Processing and Packing of Thermostabilized Foods in Flexible Packages and is available from the U. S. Army Natick Development Center, Natick, Massachusetts 01760.

2.6.2 Secondary Packaging

Design of the secondary package was made with concern for maximum protection to the food and yet yield a container which would enhance the acceptability of the meal unit. Production considerations were taken into account to yield a container which could be standardized and thereby interchangeable with each menu.

2.6.2.1 Meal Container

The meal container is constructed of MC 2 Elite Flute white corrugated paper material. The container has a tuck top with friction

ends. Specific requirements for the meal container are included in Figure 16 Secondary Meal Container.

2.6.2.2 Meal Tray

A meal tray was included in the meal system to serve two functions; to provide a means of positioning and holding primary food packages in the meal container and secondly, to serve as a food meal tray. The tray is made of 60 mil white high-impact polystyrene and is FDA-approved for food contact use. The material has a forming temperature of 300°F, a short period of time use temperature 210°F and a continuous use temperature of 185°F. The material is described as slow burning. The meal tray is produced by thermoforming over a mold (Figure 17). The outside edge of the tray is trimmed one (1) inch from the top edge of the tray after forming. To insure food tray cleanliness and safety the tray is sealed in a 2 mil polyethylene bag. The dimensions of the polyethylene bag are 10 x 16 inches.

2.6.2.3 Shrink Film

After the primary packages are placed on the polyethylene bagged food tray, it is enclosed in a shrink film and sealed before passing through a shrink tunnel. The shrink material is 3/4 mil centerfold olefin type shrink film and heat sealed on all open ends. After heat sealing, small holes are made in the film to allow air to escape from the package when the material is heat shrunk. This over-wrapped package is then placed in the meal container.

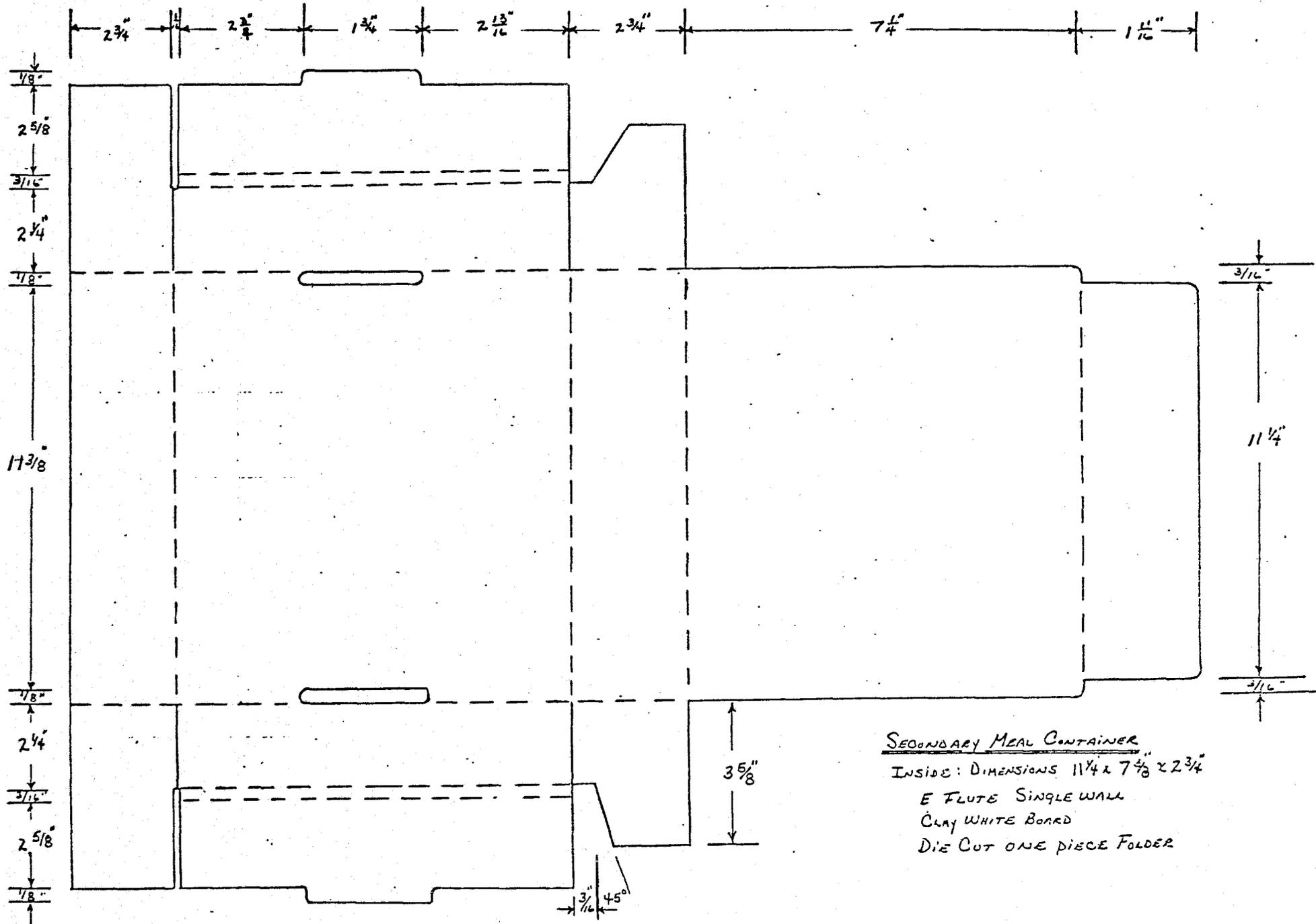


Figure 16. Secondary Meal Container

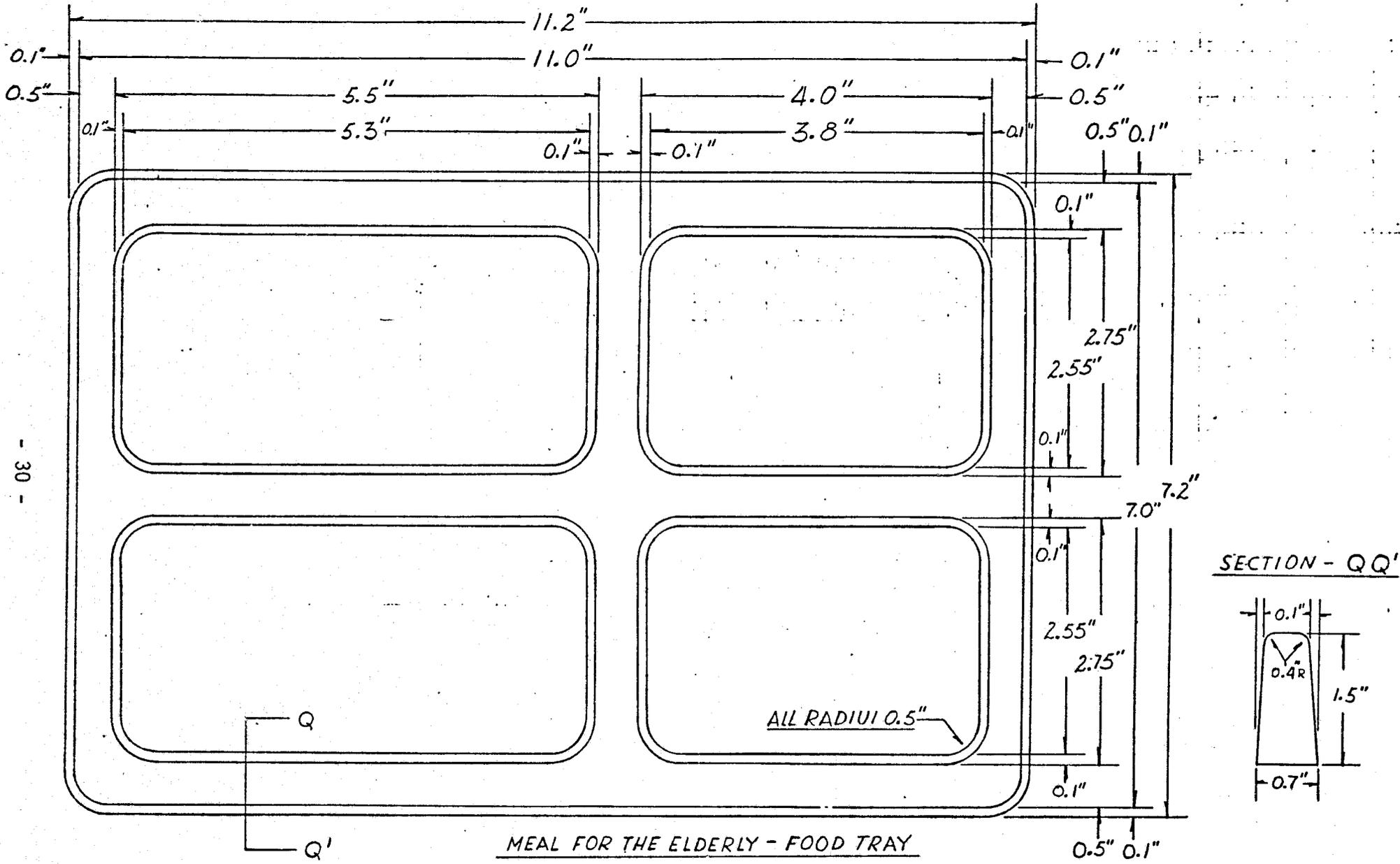


Figure 17. Meal Food Tray Mold.

2.7 Multi-Day Meal Packaging

The multi-day meal packaging was designed to provide ease in handling and distribution of the meal units. The design is based on simplicity in manufacture of the package as well as in assembly of meal units. The design is flexible in that any number of meals can be combined with this design. The current multi-day meal package is designed for a 7-day meal package.

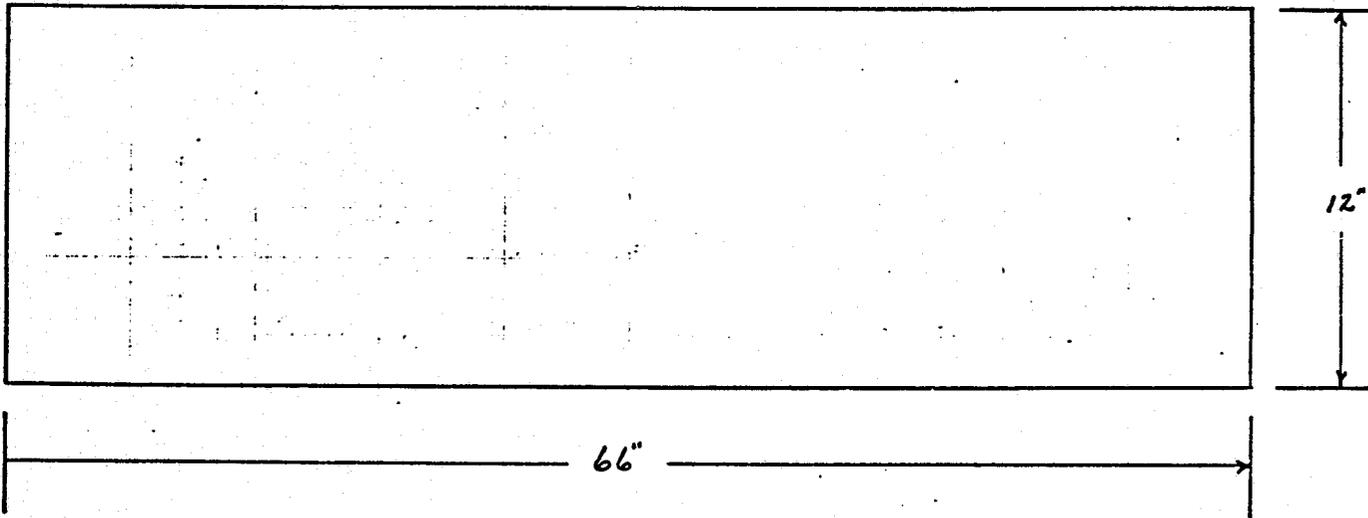
The multi-day meal package is a sheet of 200 lb. test C-Flute corrugated paper material (Figure 18) which is wrapped around 7 meal containers. The sheet has corrugations running the width of material so that it is easily formed around the corners of the meal containers. Two strips of 1/2 inch polypropylene strapping hold the corrugated material and the meal containers in a multi-day meal package. The polypropylene strapping is held together by 1/2 inch metal binding clips. A 12 inch strip of the polypropylene is connected at the top of the package to form a carrying handle for the entire multi-day meal package. A tensioning tool and a clip fastener are used in securing the strapping in the above operations.

Sources of supply and price quotations for all of the packaging material are included in Appendix IV.

3.0 RECOMMENDATIONS

Based on experience obtained during Meal System Development For The

ORIGINAL PAGE IS
OF POOR QUALITY



CORRUGATED WRAP

SHEET SIZE 12" X 66"

DIRECTION OF CORRUGATIONS - WITH 12" DIMENSION

200# TEST-SINGLE WALL

OYSTER WHITE LINER OR KRAFT

Figure 18. Multi-Meal Overwrap

Elderly, several points of interest should be considered to more economically implement such a meal system. The first, perhaps should be reconsideration of the use of the meal tray. Although the tray does add greatly to the convenience of the meal system it does however increase the cost of the meal units significantly. It is suggested that after Phase II, Preliminary Demonstration, the food tray be evaluated to determine if its inclusion in the meal system justifies the increased cost. Also, rather than including a food tray in every meal it would be more economical to issue a reusable food tray to each individual prior to participation in the meal program or include a reusable food tray with each multi-day meal package. Deletion of the food tray from the secondary meal container would also reduce the overall size of the meal package significantly.

The second area to consider is labeling and repackaging of many food items produced by many commercial food companies. It is recommended that the original packaging and labeling of the manufacturer be utilized since product compatibility with packaging has been well tested and labeling has been designed to add appeal and aesthetics to the package and package contents.

The third point of interest is the use of the retortable flexible pouch, in the meal system. Currently the Federal Food and Drug Administration has a hold on the production and marketing of food items packaged in the retortable flexible pouch. The hold is a

normal procedure by the FDA before established food safety cautions are met. The concern at this time is the migration of the adhesives into the food product when processed at temperatures above 212°F.

The adhesives are used to bond or laminate the different layers of materials together. Currently the FDA is soliciting test information on material migration from adhesive manufacturers so that the safety of retortable flexible pouches can be justified.

The retortable flexible pouch offers many advantages over current methods of packaging foods. Some of the advantages are: (1) reduced process and preparation times due to package configuration (2) higher quality products because of reduced process and preparation times (3) reduced package weight and storage space. Although the pouch offers many advantages it is not commercially available because of the FDA hold and also because the U.S. commercial food companies are in the initial planning stages for production of food in retortable flexible pouches. As a result of the above, cost of food in flexible pouches will be significantly higher than other methods of packaging until production of this unique packaging method is put into full scale operation. The elderly meal system is designed so that thermostabilized food could conceivably be processed in the retortable flexible pouch when the opportunity arises.

APPENDIX I
MENU DESIGN

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MENU #1 - FLEX-POUCH

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P	mg.Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
78	*Meat Balls in BBQ Sauce 4.8 oz.	283	20.8	10.30	15.60	38.0	172.0	2.30	582	0.070	0.240	4.62	5.00
141	*Peas 5 oz	69	4.4	0.60	12.60	25.2	63.0	1.13	630	0.095	0.090	1.00	9.92
160	Pineapple 5 oz	87	0.6	0.15	22.65	24.0	12.0	0.60	90	0.150	0.045	0.45	15.00
137	Peanuts 1.5 oz	263	11.7	22.41	8.46	33.3	180.5	0.95	--	0.144	0.060	7.74	--
42	*Chocolate Drink 10 oz	225	11.0	5.00	34.00	250.0	250.0	4.50	1250	0.380	0.450	5.00	11.25
	TOTALS	927	48.5	38.46	93.31	370.5	677.5	9.48	2552	0.839	0.385	18.81	41.17
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

*These foods are currently packaged in cans until FDA approval of the use of retortable flexible pouches for these items.

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MENU #2 - FREEZE-DRIED AND DEHYDRATED

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
120	Chicken Stew 8 oz	216	15.68	7.84	21.52	20.03	46.85	0.32	449.8	0.038	0.060	1.89	3.30
54	Green Pea Soup 6 oz	130	7.00	1.00	20.00	20.00	--	1.44	--	--	0.144	1.20	--
125	Rice 'n Chicken 8 oz	324	9.36	10.80	47.52	3.31	24.05	0.62	53.9	0.086	0.090	1.08	2.00
144	Lemon Instant Pudding 4 oz	140	4.00	--	31.00	150.00	325.00	--	250.0	0.045	0.225	--	0.45
115	Strawberry Instant Drink 8 oz	210	15.00	1.00	35.00	350.00	300.00	4.50	1500.0	0.390	0.540	5.00	21.15
	TOTALS	1020	51.04	20.64	155.04	543.34	695.90	6.88	2253.7	0.559	1.059	9.17	26.90
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #3 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
11	Spaghetti 'n Beef 7½ oz.	238	11.8	14.7	27.0	26.0	128.0	2.60	1802	0.170	0.170	3.7	-
52	Spring Vegetable Soup 6 oz.	45	1.0	1.0	8.0	-	-	0.36	-	-	0.036	0.4	-
141	Peas 5 oz.	69	4.4	0.6	12.6	25.2	63.0	1.13	630	0.095	0.090	1.0	9.92
135	Chocolate Crunch Bar 1½ oz.	220	6.0	12.0	21.0	50.0	50.0	4.50	-	0.300	0.090	5.0	-
59	Vanilla Drink 10 oz.	230	11.0	5.0	35.0	250.0	250.0	4.50	1250	0.380	0.450	5.0	11.25
	TOTALS	802	34.2	33.3	103.6	351.2	491.0	13.09	3682	0.945	0.836	15.1	21.17
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU # 4 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	-IU- Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
88	Beef Stew 7 1/2 oz	186.0	16.90	5.60	16.40	38.0	73.0	2.600	4513	0.080	0.170	4.00	--
140	Cream Style Corn 5 oz	132.3	3.15	0.60	30.00	--	94.5	0.680	189	0.038	0.090	1.26	7.08
34	Mixed Fruit 5 oz	100.0	--	--	27.00	--	--	0.360	200	--	0.036	0.40	45.00
136	Almonds 1 1/2 oz	269.1	8.37	24.39	8.75	105.3	226.8	2.115	--	0.020	0.414	1.58	--
48	Dutch Chocolate Drink 10 oz	<u>230.0</u>	<u>11.00</u>	<u>3.00</u>	<u>40.00</u>	<u>250.0</u>	<u>250.0</u>	<u>4.500</u>	<u>1250</u>	<u>0.380</u>	<u>0.450</u>	<u>5.00</u>	<u>11.25</u>
	TOTALS	917.4	39.42	33.59	122.15	393.3	644.3	10.255	6152	0.518	1.160	12.24	63.33
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

MENU # 5 - FLEX - POUCH

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
79	*Chicken a la King 5.0 oz	186.0	19.10	5.00	7.50	50.0	193.00	1.30	174.0	0.010	0.220	6.37	2.00
141	*Peas 5.0 oz	69.0	4.40	0.60	12.60	25.2	63.00	1.13	630.0	0.095	0.090	1.00	9.92
76	*Corn 5.0 oz	98.0	2.82	0.88	23.21	5.9	71.78	0.59	400.4	0.044	0.077	1.34	7.43
137	Peanuts 1.5 oz	263.0	11.70	22.41	8.46	33.3	180.50	0.95	--	0.144	0.060	7.74	--
43	*Chocolate Fudge Drink 10.0 oz	225.0	11.00	5.00	34.00	250.0	250.0	4.50	1250.0	0.380	0.450	5.00	11.25
TOTALS		841.0	49.02	33.89	85.77	364.4	757.78	8.47	2454.4	0.673	0.897	21.45	30.60
(1/3 Recommended dietary allowances for males 51 years old or older)		792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

*These foods are currently packaged in cans until FDA approval of the use of retortable flexible pouches for these items.

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MENU # 6 - FRIEZE-DRIED AND DEHYDRATED

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
117	Beef & Rice w/Onions 8 oz	256.0	13.36	5.60	38.60	7.13	48.00	1.00	3.6	0.086	0.100	1.400	2.75
5	Peas 5 oz	76.7	7.48	0.46	15.66	5.40	24.30	0.54	183.0	0.090	0.030	0.540	5.13
153	Cottage Cheese 5 oz	135.0	5.28	4.92	17.43	209.00	54.00	1.18	--	0.008	0.201	0.098	--
135	Chocolate Crunch Bar 1 1/2 oz	220.0	6.00	12.00	21.00	50.00	50.00	4.50	--	0.300	0.090	5.000	--
113	Vanilla Instant Drink 8 oz	210.0	15.00	1.00	35.00	350.00	300.00	4.50	1500.0	0.390	0.540	5.000	21.15
	Totals	906.7	47.12	23.98	127.69	621.53	476.3	11.72	1686.6	0.874	0.961	12.038	29.03
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #7 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
15	Chili Con Carne w/Beans 7 3/4 oz	295.0	17.40	14.40	23.9	77.0	227	4.7	1451	0.09	0.180	5.50	--
13	Macaroni & Cheese 7 1/2 oz	213.8	8.78	9.00	24.0	186.8	171	0.9	248	0.11	0.225	0.90	--
138	Mixed Vegetables 5 oz	100.0	5.00	0.46	20.9	39.0	98	2.0	7734	0.19	0.109	1.72	12.50
26	Banana Pudding 5 oz	180.0	3.00	5.00	30.0	100.0	100	--	--	0.03	0.180	--	--
104	Orange Drink 8 oz	132.0	--	--	32.8	84.0	139	0.1	2077	--	--	--	185.00
	TOTALS	920.8	34.18	29.86	131.6	486.8	735	7.7	11510	0.42	0.694	8.12	197.50
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #8 - FREEZE-DRIED AND DEHYDRATED

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHO	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
123	Beef Stroganoff 8 oz	240.0	10.16	12.76	23.94	15.7	37.7	0.36	71.0	.02	.04	.59	.25
153	Cottage Cheese 5 oz	135.0	5.28	4.92	17.43	209.00	54.00	1.18	--	0.008	0.201	0.098	--
5	Peas 5 oz	76.7	7.48	0.46	15.66	5.40	24.30	0.54	183.0	0.090	0.030	0.540	5.13
145	Chocolate Instant Pudding 4 oz	150.0	4.0	1.0	34.0	150.0	375.0		250.0	0.045	0.225	--	.45
115	Strawberry Instant Drink 8 oz	210.0	15.00	1.00	35.00	350.00	300.00	4.50	1500.0	0.390	0.540	5.000	21.15
	TOTALS	811.7	41.92	19.54	126.03	415.10	790.70	6.58	2004.0	0.553	1.036	6.228	26.98
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #9 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CH0	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
14	Beans & Franks in Tomato Sauce 8 3/4 oz	399.0	20.40	17.7	39.14	157	28.40	6.00	319	0.18	0.180	2.70	--
55	Cream of Mushroom Soup 6 oz	100.0	2.00	3.0	17.00	40	--	--	--	--	0.108	0.40	--
142	Green Beans 5 oz	25.2	1.26	--	5.04	38	25.2	0.90	788	0.04	0.090	0.25	2.80
35	Diced Peaches 5 oz	110.0	--	--	28.00	--	--	0.36	300	--	0.360	0.80	45.00
42	Chocolate Drink 10 oz	225.0	11.0	5.0	34.00	250	250.0	4.50	1250	0.38	0.450	5.00	11.25
	TOTALS	859.2	34.66	21.2	123.14	485	559.2	11.76	2657	0.60	1.260	9.15	59.05
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #10 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHC	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
32	Chicken 'n Broth 5 oz	215	37.50	7.0	--	20	205	2.00	345	0.05	0.150	13.00	--
54	Green Pea Soup 6 oz	130	7.00	1.0	20.0	20	--	1.44	--	--	0.144	1.20	--
57	Stewed Tomatoes 5 oz	44	1.00	--	10.0	40	20	0.72	750	0.06	0.036	0.80	15.75
23	Vanilla Pudding 5 oz	190	3.24	5.0	32.0	100	100	4.50	--	0.03	0.180	--	--
43	Chocolate Fudge Drink 10 oz	<u>225</u>	<u>11.00</u>	<u>5.0</u>	<u>34.0</u>	<u>250</u>	<u>250</u>	<u>4.50</u>	<u>1250</u>	<u>0.38</u>	<u>0.450</u>	<u>5.00</u>	<u>11.25</u>
	TOTALS	804	59.74	18.0	96.0	430	575	13.16	2345	0.52	0.96	20.0	27.00
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #11 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHO	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
38	Vienna Sausage 5 oz	360.0	21.00	29.70	0.45	12.0	299.50	3.15	--	0.120	0.195	3.90	--
76	Corn 5 oz	98.0	2.82	0.88	23.21	5.9	71.28	0.59	400.4	0.044	0.077	1.34	7.43
138	Mixed Vegetables 5 oz	100.0	5.00	0.46	20.90	39.0	98.00	2.00	7734.0	0.190	0.109	1.72	12.50
22	Butterscotch Pudding 5 oz	180.0	3.0	5.00	31.0	100.0	100.00	0	--	0.030	0.180	--	--
43	Chocolate Fudge Drink 10 oz	225.0	11.00	5.00	34.00	250.0	250.00	4.50	1250.0	0.380	0.450	5.00	11.25
	TOTALS	963.0	42.82	41.04	109.56	406.9	818.78	10.24	9834.4	0.764	1.011	11.96	31.18
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

MENU #12 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHO	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
33	Turkey w/Broth 5 oz	303.0	31.35	18.75	--	20.0	205.0	2.10	195	0.030	0.210	7.05	--
151	Sweet Potatoes 5 oz	171.0	1.50	0.30	41.25	19.5	43.5	1.05	7500	0.045	0.045	0.90	12.00
142	Green Beans 5 oz	25.2	1.26	--	5.04	38.0	25.2	0.90	788	0.040	0.090	0.25	2.80
34	Mixed Fruit 5 oz	100.0	--	--	27.00	--	--	0.36	200	--	0.036	0.40	45.00
48	Dutch Chocolate Drink 10 oz	<u>230.0</u>	<u>11.00</u>	<u>3.00</u>	<u>40.00</u>	<u>250.0</u>	<u>250.0</u>	<u>4.50</u>	<u>1250</u>	<u>0.380</u>	<u>0.450</u>	<u>5.00</u>	<u>11.25</u>
	TOTALS	829.2	45.11	22.05	113.29	327.5	523.7	8.01	9933	0.490	0.831	13.60	71.05
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

MENU #13 - FREEZE-DRIED AND DEHYDRATED

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
3	Tuna a la Neptune 5 oz	157.9	12.00	5.47	15.26	--	--	--	--	--	--	--	--
56	Bean Soup 6 oz	110.0	6.00	1.00	18.00	40.0	--	1.80	--	--	0.036	0.40	--
124	Chicken Pilaf 8 oz	328.0	11.76	11.76	42.78	3.7	52.8	.64	53.9	0.070	0.110	1.57	1.85
144	Lemon Instant Pudding 4 oz	140.0	4.00	--	31.00	150.0	325.0	--	250.0	0.045	0.225	--	0.45
113	Vanilla Instant Drink 8 oz	210.0	15.00	1.00	35.00	350.0	300.0	4.50	1500.0	0.390	0.540	5.00	21.15
	TOTALS	945.9	48.76	19.23	142.04	543.7	677.8	6.94	1803.9	0.505	0.911	6.97	23.45
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #14 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
11	Spaghetti 'n Beef 7 1/2 oz	238	11.8	14.7	27.0	26.0	128.0	2.60	1802	0.170	1.170	3.70	--
55	Cream of Mushroom Soup 6 oz	100	2.0	3.0	17.0	40.0	--	--	--	--	0.108	0.40	--
141	Peas 5 oz	69	4.4	0.6	12.6	25.2	63.0	1.13	630	0.095	0.090	1.00	9.92
25	Chocolate Fudge Pudding 5 oz	190	4.0	6.0	31.0	100.0	100.0	1.08	--	0.030	0.180	0.40	--
59	Vanilla Drink 10 oz	230	11.0	5.0	35.0	250.0	250.0	4.50	1250	0.380	0.450	5.00	11.25
	TOTALS	827	33.2	29.3	122.6	441.2	541.0	9.31	3682	0.675	0.998	10.5	21.17
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #15 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHO	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
32	Chicken 'n Broth 5 oz	215.0	37.50	7.00	--	20.0	205.0	2.00	345	0.05	0.150	13.00	--
92	Lima Beans 'n Ham 5 oz	106.5	6.15	0.45	20.10	40.0	100.5	3.60	195	0.06	0.060	0.75	10.50
138	Mixed Vegetables 5 oz	100.0	5.00	0.46	20.90	39.0	98.0	2.00	7734	0.19	0.109	1.72	12.50
148	Peanut Butter Bar 1 1/2 oz	210.0	6.00	11.00	21.00	50.0	50.0	4.50	1000	0.30	0.090	5.00	20.25
59	Vanilla Drink 10 oz	230.0	11.00	5.00	35.00	250.0	250.0	4.50	1250	0.38	0.450	5.00	11.25
	TOTALS	861.5	65.65	23.91	97.00	399.0	703.5	16.60	10524	0.98	0.859	25.47	54.50
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #16 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHO	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Ribovlavin	mg. Niacin	mg. Vit C
17	Chili-Mac 8 1/2 oz	275.0	13.5	10.6	31.4	77.0	162.0	4.3	1250	0.17	0.17	3.3	--
140	Cream Style Corn 5 oz	132.2	3.15	0.60	30.0	--	94.5	0.68	189	0.038	0.090	1.26	7.03
57	Stewed Tomatoes 5 oz	44.0	1.00	--	10.0	40.0	20.0	0.72	750	0.060	0.036	0.80	15.75
30	Rice Pudding 5 oz	200.0	4.0	5.0	34.0	150.0	100.0	0		.03	0.144	0.80	
42	Chocolate Drink 10 oz	225.0	11.00	5.00	34.0	250.0	250.0	4.50	1250	0.380	0.450	5.00	11.25
	TOTALS	876.2	32.65	21.2	139.4	517.0	626.5	10.2	3439	0.678	0.89	11.16	34.08
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

MENU #17 - FRIEZE-DRIED AND DEHYDRATED

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. Carb	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
2	Beef Almondine 6 oz	165.0	12.96	5.87	14.54	--	--	--	--	--	--	--	--
54	Green Pea Soup 6 oz	130.0	7.00	1.00	20.00	20.00	--	1.44	--	--	0.144	1.20	--
124	Chicken Pilaf 8 oz	328	11.76	11.76	42.78	3.7	52.8	.64	53.9	.07	.11	1.57	1.85
143	Vanilla Instant Pudding 4 oz	140.0	4.00	--	31.00	150.00	325.00	--	250.0	0.045	0.225	--	0.45
108	Chocolate Instant Drink 8 oz	210.0	15.00	1.00	35.00	350.00	300.00	4.50	150.0	0.390	0.540	5.00	21.15
	TOTALS	973.0	50.72	19.63	143.24	523.7	677.80	6.58	1803.9	0.505	1.019	7.77	23.45
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

MENU #18 - FREEZE-DRIED AND DEHYDRATED

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHO	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
122	Vegetable Stew w/Beef 8 oz	216	12.00	7.12	25.52	6.98	--	0.45	505.9	0.040	0.026	0.55	2.75
53	Tomato Soup 6 oz	80	1.00	1.00	17.00	20.00	--	0.72	--	--	0.036	0.80	--
116	Potatoes w/Beef 8 oz	288	14.1	13.32	27.9	42.3	162.00	2.17	--	0.085	0.187	3.14	23.64
143	Vanilla Instant Pudding 4 oz	140	4.00	--	31.00	150.00	325.00	--	250.0	0.045	0.225	--	0.45
108	Chocolate Instant Drink 8 oz	210	15.00	1.00	35.00	350.00	300.00	4.50	1500.0	0.390	0.540	5.00	21.00
	TOTALS	934	46.10	22.44	136.42	569.28	787.00	7.84	2255.9	0.56	1.014	9.5	47.99
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #19 - FLEX-POUCH

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHO	mg.Ca	mg.P.	mg.Ic	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
83	*Ham and Chicken Loaf 5 oz	210.0	31.35	6.15	7.20	27.0	256.50	2.10	--	0.045	0.360	8.40	--
74	*Beans in Tomato Sauce 5 oz	204.0	10.35	1.95	36.30	85.5	196.50	2.55	424.50	0.135	0.050	1.35	--
76	*Corn 5 oz	98.0	2.82	0.88	23.21	5.9	71.28	0.59	400.40	0.044	0.077	1.34	7.43
84	Applesauce 5 oz	135.2	0.30	0.15	35.34	5.9	7.48	0.75	59.40	0.030	0.015	--	1.49
59	*Vanilla Drink 10 oz.	230.0	11.00	5.00	35.00	250.0	250.00	4.50	1250.00	0.380	0.450	5.00	11.25
	TOTALS	877.2	55.82	14.13	137.05	374.3	781.76	10.49	2134.30	0.634	0.952	16.09	20.17
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

*These foods are currently packaged in cans until FDA approval of the use of retortable flexible pouches for these items.

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MENU #20 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm.Pro	gm.Fat	gm.CHD	mg.Ca	mg.P.	mg.Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
33	Turkey w/Broth 5 oz	303.0	31.35	18.75	--	20.0	205.0	2.10	195	0.030	0.210	7.05	--
138	Mixed Vegetables 5 oz	100.0	5.00	0.46	20.90	39.0	98.0	2.00	7734	0.190	0.109	1.72	12.50
152	Applesauce 5 oz	137.6	0.30	0.15	35.99	6.0	7.6	0.75	60	0.030	0.015	--	1.50
28	Tapioca Pudding 5 oz	170.0	3.00	4.00	30.00	150.0	100.0	0.36	--	0.030	0.180	0.40	--
42	Chocolate Drink 10 oz.	225.0	11.00	5.00	34.00	250.0	250.0	4.50	1250	0.380	0.450	5.00	11.25
	TOTALS	935.6	50.65	28.36	120.89	465.0	660.6	9.71	9239	0.660	0.964	14.17	25.25
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

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MENU #21 - CANNED ITEMS

Item No.	Food & Description	Kcal	gm. Pro	gm. Fat	gm. CHD	mg. Ca	mg. P.	mg. Fe	IU. Vit A	mg. Thiamin	mg. Riboflavin	mg. Niacin	mg. Vit C
38	Vienna Sausage 5 oz.	360.0	21.00	29.7	0.45	12	299.5	3.15	--	0.12	0.195	3.90	--
13	Macaroni & Cheese 7½ oz.	213.8	8.78	9.0	24.00	186	171.0	0.90	248	0.11	0.225	0.90	--
142	Green Beans 5 oz.	25.2	1.26	--	5.04	38	25.2	0.90	788	0.04	0.090	0.25	2.80
148	Peanut Butter Bar 1½ oz.	210.0	6.00	11.0	21.00	50	50.0	4.50	1000	0.30	0.090	5.00	20.25
20	Cocoa Drink 6 oz.	100.0	4.00	--	22.00	100	--	0.36	--	0.03	0.180	--	0.90
	TOTALS	909.0	41.04	49.7	72.49	386	545.7	9.81	2036	0.60	0.780	10.05	23.95
	(1/3 Recommended dietary allowances for males 51 years old or older)	792.0	18.50	--	--	264.00	264.00	3.30	1650	0.400	0.500	5.300	15.00

APPENDIX II

FOOD MANUFACTURING SPECIFICATIONS

APPENDIX II

FOOD MANUFACTURING SPECIFICATIONS (FMS)

<u>FMS</u>	<u>Menu Item Number</u>	<u>Food Item</u>
FMS-1	2	Beef Almondine with Vegetables and Macaroni, Freeze Dried
FMS-2	3	Tuna a la Neptune, Freeze Dried
FMS-3	5	Peas, Freeze Dried
FMS-4	11	Spaghetti 'n Beef in Tomato Sauce, Thermostabilized
FMS-5	13	Elbow Macaroni and Cheese, Thermostabilized
FMS-6	14	Beans and Franks in Tomato Sauce, Thermostabilized
FMS-7	15	Chili Con Carne, Thermostabilized
FMS-8	17	Chili-Mac, Thermostabilized
FMS-9	20	Hot Cocoa Drink, Dehydrated
FMS-10		Puddings, Thermostabilized
	23	Type I - Vanilla Pudding
	26	Type II - Banana Pudding
	28	Type III - Tapioca Pudding
	22	Type IV - Butterscotch Pudding
	25	Type V - Chocolate Fudge Pudding
	30	Type VI - Rice Pudding
FMS-11		Poultry Meat, Thermostabilized
	32	Type I - Chicken with Broth
	33	Type II - Turkey with Broth
FMS-12		Canned Fruit, Thermostabilized
	160	Type I - Pineapple
	34	Type II - Mixed Fruit
	152	Type III - Applesauce
	35	Type IV - Diced Peaches
FMS-13	38	Vienna Sausage, Thermostabilized
FMS-14		Drinks, Thermostabilized
	59	Type I - Vanilla Drink
	48	Type II - Dutch Chocolate Drink
	42	Type III - Chocolate Fudge Drink
FMS-15		Soups, Dehydrated
	52	Type I - Spring Vegetable Soup
	54	Type II - Green Pea Soup
	53	Type III - Tomato Soup
	55	Type IV - Cream of Mushroom Soup
	56	Type V - Bean Soup

<u>FMS</u>	<u>Menu Item Number</u>	<u>Food Item</u>
FMS-16	57	Stewed Tomatoes, Thermostabilized
FMS-17	142	Canned Vegetables, Thermostabilized
	141	Type I - Green Beans
	138	Type II - Peas
	76	Type III - Mixed Vegetables
	140	Type IV - Corn
	151	Type V - Cream Style Corn
		Type VI - Sweet Potatoes
FMS-18	88	Beef Stew, Thermostabilized
FMS-19	92	Lima Beans and Ham, Thermostabilized
FMS-20	104	Orange Drink, Natural Fruit Flavored, Powdered
FMS-21		Drinks, Instant, Dehydrated
	108	Type I - Instant Chocolate Drink
	115	Type II - Instant Strawberry Drink
	113	Type III - Instant Vanilla Drink
FMS-22	116	Potatoes and Beef with Onions, Freeze-Dried
FMS-23	117	Beef and Rice with Onions, Freeze Dried
FMS-24	120	Chicken Stew, Freeze-Dried
FMS-25	122	Vegetable Stew with Beef, Freeze-Dried
FMS-26	123	Noodles and Stroganoff Sauce with Beef, Freeze-Dried
FMS-27	125	Rice and Chicken, Freeze-Dried
FMS-28	124	Chicken Pilaf, Freeze-Dried
FMS-29		Dessert Bars, Intermediate Moisture
	135	Type I - Chocolate Crunch Bar
	148	Type II - Peanut Butter Bar
FMS-30		Nuts, Dry Roasted, Natural
	137	Type I - Peanuts
	136	Type II - Almonds
FMS-31		Puddings, Instant, Dehydrated
	143	Type I - Vanilla Instant Pudding
	144	Type II - Lemon Instant Pudding
	145	Type III - Chocolate Instant Pudding
FMS-32	153	Cottage Cheese, Freeze-Dried

The following Limited Production Purchase Descriptions pertain to product and packaging of foods in retortable flexible pouches. These documents can be obtained from:

Department of the Army
U. S. Army Development Center
Natick, Massachusetts 01760

<u>LP/P DES</u>	<u>Item Number</u>	<u>Food</u>
LP/P DES 6-75	78	Beef Slices with Barbecue Sauce and Meatballs with Barbecue Sauce
LP/P DES 15-75	83	Ham and Chicken Loaf Packaging, Processing and Packaging of Items in LP/P DES 6-75 and LP/P DES 15-75.
LP/P DES 16-75	74	Beans with Tomato Sauce
LP/P DES 17-75	160 84	Fruits, Thermostabilized, Flexibly Packaged (Applesauce and Pineapple)
LP/P DES 10-75	79	Chicken a la King

FMS-1

FOOD MANUFACTURING SPECIFICATIONS
BEEF ALMONDINE WITH VEGETABLES AND MACARONI,
FREEZE-DRIED

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1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried beef almon-dine with vegetables and macaroni for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Dehydrated Vegetables

U. S. Standards for Grades of Macaroni Products

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

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical flavor, odor, and color.

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- 3.2.1 Beef. Cooked beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.
- 3.2.2 Vegetables. All vegetables shall comply with the requirements of the U. S. Standards for each vegetable.
- 3.2.3 Vegetable Oil. Polyunsaturated vegetable oil shall be of high quality.
- 3.2.4 Starch. Modified food starch shall be of high quality and approved for food use.
- 3.2.5 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.6 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.7 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.2.8 Monosodium Glutamate. Monosodium glutamate shall be of Food Chemicals Codex identity and purity.
- 3.2.9 Flavorings. Natural or artificial flavors approved for food use may be used.
- 3.2.10 Coloring. Natural or artificial colors approved for food use may be used.
- 3.2.11 Antioxidants. Disodium inosinate and disodium guanylate approved for food use may be used as antioxidants and preservatives.
- 3.2.12 Macaroni. Macaroni shall be of high quality.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Beef, peas, carrots, macaroni, onions, almonds, modified corn starch, polyunsaturated vegetable oil, beef extract, salt, monosodium glutamate, flavorings, sugar, caramel coloring, disodium inosinate and disodium guanylate.

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- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Freeze-Drying. After the product has been cooked it shall be cooled and frozen. Subsequently it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
 - 2) Oxygen content of packaged product shall not exceed 2.0 percent.
 - 3) Approximately 1.7 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
 - 4) The rehydrated product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

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- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 1.7 ounces of product per container.
- 4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of Cflute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment

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5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

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FOOD MANUFACTURING SPECIFICATIONS
TUNA A LA NEPTUNE, FREEZE-DRIED

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1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried Tuna A La Neptune for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Nonfat Dry Milk

U.S. Standards for Grades of Tuna

U.S. Standards for Grades of Macaroni Products

U.S. Standards for Grades of Vegetables

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.

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- 3.2.1 Tuna. White meat tuna shall be of high quality and comply with requirements of the Standards for White Meat Tuna.
- 3.2.2 Macaroni. Macaroni shall be of high quality and comply with the requirements of Standards for Macaroni Products.
- 3.2.3 Nonfat Dry Milk. Nonfat dry milk shall be food grade.
- 3.2.4 Vegetables. All vegetables shall comply with the requirements of the U.S. Standards for each vegetable used.
- 3.2.5 Corn Oil. Corn oil shall be of high quality.
- 3.2.6 Starch. Modified starch shall be high quality food grade.
- 3.2.7 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.8 Monosodium Glutamate. Monosodium glutamate shall be of Food Chemical Codex identity and purity.
- 3.2.9 Spices and Flavorings. Natural and artificial spices and flavorings approved for food use may be used.
- 3.2.10 Antioxidants. Disodium inosinate and disodium guanylate approved for food use may be used as antioxidants and preservatives.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

White meat tuna, macaroni, mushrooms, nonfat dry milk, green peppers, peas, carrots, corn oil, celery, modified corn starch, flour, salt, flavorings, monosodium glutamate, disodium inosinate, and disodium guanylate.

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- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Freeze-Drying. After the product has been cooked it shall be cooled and frozen. Subsequently it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
 - 2) Approximately 1.8 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
 - 3) Oxygen content of packaged product shall not exceed 2.0 percent.
 - 4) The rehydrated product shall have a typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

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- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 1.8 ounces of product per container.
- 4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official

5.0 PREPARATION FOR DELIVERY

- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment

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5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

FMS-3

FOOD MANUFACTURING SPECIFICATIONS
VEGETABLES, FREEZE-DRIED

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1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried vegetables for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Peas

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.

3.2.1 Peas. Grade A sweet peas shall be used either fresh, frozen or canned.

3.3 Formulation. Formulation is proprietary and is not specified.

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- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Freeze-Drying. After the product has been cooked it shall be cooled and frozen. Subsequently it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table I.
-

Table I - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
 - 2) Oxygen content of packaged product shall not exceed 2.0 percent.
 - 3) Approximately 0.9 ounces of product shall rehydrate within 10 minutes after the addition of 4.0 fluid ounces of boiling water with gentle stirring.
 - 4) The rehydrated product shall have a typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 0.9 ounces of product per container.
- 4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.

5.0 PREPARATION FOR DELIVERY

- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment

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5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

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FMS-4

FOOD MANUFACTURING SPECIFICATION

SPAGHETTI 'n BEEF IN TOMATO SAUCE, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized Spaghetti 'n Beef in Tomato Sauce for use in the elderly meals system.

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Department of Agriculture

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

U. S. Standards for Grades of Cheddar Cheese

U. S. Standards of Identity for Macaroni Products

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

3.2.1 Beef. Beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.

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- 3.2.2 Vegetables. Vegetables shall be of high quality. Vegetables used may either be fresh, frozen or dehydrated.
- 3.2.3 Spaghetti. Enriched spaghetti shall be used and shall comply with Standards of Identity for Macaroni Products.
- 3.2.4 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.5 Wheat Flour. Enriched wheat flour may be used and shall be of high quality.
- 3.2.6 Citric Acid. Citric acid shall comply with Food Chemicals Codex requirements for identity and purity.
- 3.2.7 Flavorings. Flavorings may be used and shall be approved for food use.
- 3.2.8 Vegetable Oil. A high quality vegetable oil shall be used.
- 3.2.9 Cheddar Cheese. Cheddar Cheese shall comply with the requirements of U. S. Standards for Grades of Cheddar Cheese.
- 3.2.10 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.3 Formulation. Formulation is proprietary and is not specified. Ingredients are designated in Table I.

Table I - Product Ingredients

Tomatoes, water, enriched spaghetti, beef, cooked beef, vegetable oil, salt, enriched wheat flour, sugar, cheddar cheese, carrots, dehydrated onions, flavoring, and citric acid.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Ingredients shall be combined, cooked, filled into cans, sealed and thermally processed in accordance with established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 7 1/2 ounces of product per container.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 203 or 208 x 208 tin-plated steel or aluminum can with full-panel pullout lid. The interior of the pullout and cans shall be coated with an enamel compatible with the product.

- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions
- 6.2 Technical Notes - None

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FMS-5

FOOD MANUFACTURING SPECIFICATIONS
ELBOW MACARONI AND CHEESE, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized elbow macaroni and cheese for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Cheddar Cheese

U. S. Standards for Grades of Macaroni and macaroni products

U. S. Standards for Grades of Whey and whey products

U. S. Standards for Grades of Margarine

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All materials and ingredients shall be clean and free from foreign material and have a typical odor, color, and flavor.

3.2.1 Water. Water shall be potable.

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- 3.2.2 Macaroni. Enriched elbow macaroni shall be used.
- 3.2.3 Cheddar Cheese. Cheddar cheese shall conform to the requirements of U.S. Grade A Cheese.
- 3.2.4 Wheat Flour. Wheat flour shall be of high quality and may be enriched.
- 3.2.5 Margarine. Margarine shall comply with the requirements of U. S. Grade A or better.
- 3.2.6 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.7 Whey Powder. Whey powder shall comply with the requirements of U. S. Grade A.
- 3.2.8 Sugar. Sugar shall be granulated cane or beet sugar.
- 3.2.9 Cream. Cream shall be U. S. Grade A or better.
- 3.2.10 Monosodium Glutamate. Monosodium glutamate shall be of Food Chemicals Codes identity and purity.
- 3.2.11 Flavorings. Flavoring shall be used and shall be approved for food use.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Water, enriched elbow macaroni, cheddar cheese, enriched wheat flour, margarine, salt, whey powder, sugar, cream, monosodium glutamate, dehydrated onions and flavorings.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Ingredients shall be combined, cooked, filled into cans, sealed and thermally processed in accordance with established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
- 2) Product shall have typical flavor, color, texture, odor, and appearance.

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 7 1/2 ounces of product per container.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 203 or 208 x 208 tin-plated steel or aluminum can with full-panel pull-out lid. The interior of the pull-out and cans shall be coated with an enamel compatible with the product.

- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions
- 6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

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FMS-6

FOOD MANUFACTURING SPECIFICATIONS
BEANS AND FRANKS IN TOMATO SAUCE, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized beans and franks in tomato sauce for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Navy Beans

U. S. Standards for Grades of Tomatoes

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

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

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- 3.2.1 Frankfurters. Frankfurters shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.
- 3.2.2 Tomatoes. Tomatoes shall comply with the requirements of the U. S. Standards.
- 3.2.3 Navy Bean. U. S. #1 navy beans shall be used.
- 3.2.4 Distilled Vinegar. Distilled vinegar shall be of high quality and approved for food use.
- 3.2.5 Bacon. Bacon may be used and shall be of high quality.
- 3.2.6 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.7 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.2.8 Flavorings. Natural or artificial flavor may be used and shall be food grade.
- 3.2.9 Spices. Spices approved for food use may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Water, beans, frankfurters (Beef, Pork, water, salt, dextrose, flavoring, sodium nitrate, sodium nitrite), tomatoes, sugar, bacon, salt, distilled vinegar, flavoring, spice.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Heat Processing. The cooked product shall be filled into cans, sealed and thermally processed in accordance with standard established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II- Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 7 1/2 ounces of product per container.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 203 or 208 x 208 tin-plated steel or aluminum can with full-panel pullout lid. The interior of the pullout and cans shall be coated with an enamel compatible with the product.

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- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions
- 6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

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FMS-7

FOOD MANUFACTURING SPECIFICATIONS
CHILI CON CARNE, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1. Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized chili con carne for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Department of Agriculture

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

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

3.2.1 Beef Beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.

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- 3.2.2 Vegetables. Vegetables shall be of high quality. Vegetables used may either be fresh, frozen or dehydrated.
- 3.2.3 Starch. Potato starch may be used and shall be of high quality.
- 3.2.4 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.5 Wheat Flour. Enriched wheat flour may be used and shall be of high quality.
- 3.2.6 Citric Acid Citric Acid shall comply with Food Chemicals Codex Requirements for identity and purity.
- 3.2.7 Flavorings. Flavorings may be used and shall be approved for food use.
- 3.3 Formulation. Formulation is proprietary and is not specified. Ingredients are designated in Table I.
-

Table I - Product Ingredients

Tomatoes, cooked beans, beef, potato starch, salt, enriched wheat flour, dehydrated onions, flavoring and citric acid.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Ingredients shall be combined, cooked, filled into cans, sealed and thermally processed in accordance with established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection: The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 7 1/2 ounces of product per container.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary container shall be a 208 x 203 or 208 x 208 tin-plated steel or aluminum can with full-panel pullout lid. The interior of the pullout and cans shall be coated with an enamel compatible with the product.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

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FMS-8

FOOD MANUFACTURING SPECIFICATIONS

CHILI-MAC, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized chili-mac for use in the elderly meals system.

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Department of Agriculture

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

U.S. Standards for Grades of Cheddar Cheese

U.S. Standards of Identity for Macaroni Products

U.S. Standards for Grades of Vegetables

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U.S. Department of Health, Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

3.2.1 Beef and Beef Fat. Beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.

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- 3.2.2 Vegetables. Vegetables shall be of high quality. Vegetables used may either be fresh, frozen, or dehydrated.
- 3.2.3 Elbow Macaroni. Cooked enriched elbow macaroni shall be used and shall comply with Standards of Identity for Macaroni Products.
- 3.2.4 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.5 Wheat Flour. Enriched wheat flour may be used and shall be of high quality.
- 3.2.6 Starch. Modified food starch shall be of high quality and approved for food use.
- 3.2.7 Flavorings. Flavorings may be used and shall be approved for food use.
- 3.2.8 Cheddar Cheese. Cheddar Cheese shall comply with the requirements of U.S. Standards for Grades of Cheddar Cheese.
- 3.2.9 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.3 Formulation. Formulation is proprietary and is not specified. Ingredients are designated in Table I.

Table I - Product Ingredients

Tomatoes, beef, water, cooked enriched elbow macaroni, pink beans, sugar, cheddar cheese, salt, enriched wheat flour, beef fat, potato starch, carrots, dehydrated onions and flavorings.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Ingredients shall be combined, cooked, filled into cans, sealed and thermally processed in accordance with established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 7 1/2 ounces of product per container.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 203 or 208 x 208 tin-plated steel or aluminum can with full-panel pullout lid. The interior of the pull-out and cans shall be coated with an enamel compatible with the product.

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5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition, each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information:

- 1) Address of procuring agency
- 2) Contents
- 3) Lot Number
- 4) Place of manufacturer
- 5) Date of production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

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FMS-9

FOOD MANUFACTURING SPECIFICATION
HOT COCOA DRINK, DEHYDRATED

9/1/75

FMS 9

FOOD MANUFACTURING SPECIFICATION
HOT COCOA DRINK, DEHYDRATED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing inspection, testing, storage, and packaging of Cocoa for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein.

Standards

Federal

U. S. Standards for Grades of Nonfat Dry Milk

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Definition and Standards of Identity for Cocoa Products

Federal Food, Drug, and Cosmetic Act and regulation promulgated thereunder.

Association of Official Analytical Chemists

Official Methods of Analysis

National Research Council

Food Chemicals Codex.

3.0 REQUIREMENTS

3.1 Preproduction Sample. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

3.2.1 Sugar. Sugar shall be white granulated cane or beeh sugar.

3.2.2 Nonfat Milk Solids. Nonfat Milk solids shall be "extra grade."

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- 3.2.3 Cocoa. A high quality cocoa powder shall be used, and shall comply with the Definitions and Standards of Identity for Cocoa Products.
- 3.2.4 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.5 Vanillin. Vanillin shall be food grade and shall comply with the Food Chemical Codex.
- 3.3 Formulation. Formulation for this product is proprietary and is not specified. Ingredients are designated in Table I.
-

Table I - Product Ingredients

Sugar, nonfat milk solids, cocoa processed with alkali (Dutch processed), salt, and Vanillin.

- 3.4 Processing. Components complying with 3.2 shall be processed in a manner which produces a uniform blend and is free flowing.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) The moisture content shall not exceed 4.0 percent.
 - 2) Approximately 1 ounce of product shall be rehydrated with the addition of 6.0 fluid oz. of hot water with gentle mixing.
 - 3) The rehydrated product shall have a typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS

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- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain one (1) ounce of product per package.
- 4.1.5 Moisture. The analysis for moisture content shall be determined according to the Official Method of Analysis of the Association of Official Agricultural Chemists for Dried Milk and Malted Milk Chapter on Dairy Products.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food package shall be labeled to indicate its contents and contents weight. In addition, each food package shall be labeled with preparation instructions which shall include quantity of water required for rehydration and rehydration time.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

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5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

FMS-10

FOOD MANUFACTURING SPECIFICATIONS
PUDDINGS, THERMOTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of canned pudding for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Vanilla Pudding	Type IV - Butterscotch Pudding
Type II - Banana Pudding	Type V - Chocolate Fudge Pudding
Type III - Tapioca Pudding	Type VI - Rice Pudding

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein.

Standards

U.S. Standards for Grades of Nonfat Dry Milk

2.2 Other Publications

American Oil Chemists Society

Official and Tentative Methods

Association of Official Analytical Chemists

Official Methods of Analysis

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

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- 3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.
- 3.2.1 Nonfat Dry Milk. Nonfat dry milk shall be extra grade. Skim milk may be used as an alternate source for milk solids and may be concentrated.
- 3.2.2 Sugar. One or more of the following sugars may be used: sucrose (liquid or granular), lactose, invert sugar, dextrose or corn syrup solids.
- 3.2.3 Hydrogenated Vegetable Oil. Hydrogenated cottonseed, peanut, corn, coconut or soybean oil, or any combination of these may be used. These products shall have a stability of not less than 100 hours active oxygen method (AOM).
- 3.2.4 Modified Food Starch. Modified food starch shall be tapioca or waxy maize.
- 3.2.5 Salt. Salt shall be white, refined sodium chloride.
- 3.2.6 Sodium Phosphate. Disodium phosphate shall comply with the requirements specified in Food Chemicals Codex.
- 3.2.7 Flavors. Natural or artificial flavors approved for food shall be used.
- 3.2.8 Antioxidants. Butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT) may be used and shall comply with the requirements specified in Food Chemicals Codex.
- 3.2.9 Colors. Natural or artificial colors approved for food use shall be used.
- 3.2.10 Tapioca. Tapioca approved for food use shall be used.
- 3.3 Formulation. Formulation for these products is proprietary and is not specified. Ingredients are designated in Table I.

Table I - Product Ingredients

Type I - Vanilla Pudding

Water, sugar syrup, concentrated skim milk, Food starch Modified, vegetable oil, mono- and diglycerides, salt, artificial flavor, artificial color.

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3.3 (Continued)

Type II - Banana Pudding

Water, sugar syrup, concentrated skim milk, food starch modified, vegetable oil, mono- and diglycerides, salt, natural and artificial flavors, artificial color.

Type III - Tapioca Pudding

Skim milk, liquid sugar, tapioca, vegetable shortening, modified tapioca starch, mono- and diglycerides, salt, artificial flavor, sodium phosphate, artificial color.

Type IV - Butterscotch Pudding

Water, sugar syrup, concentrated skim milk, food starch modified, vegetable oil, natural and artificial flavors, mono- and diglycerides, salt, artificial color.

Type V - Chocolate Fudge Pudding

Water, sugar syrup, concentrated skim milk, food starch modified, cocoa powder processed with alkali, hydrogenated vegetable oil, salt, sodium stearoyl-2-lactylate, artificial flavor, artificial color.

Type VI - Rice Pudding

Skim milk, liquid sugar, precooked rice, vegetable shortening, modified tapioca starch, salt, artificial flavors, mono- and diglycerides, sodium phosphate, artificial color.

3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.

3.4.1 Mixing and Heat Processing. Ingredients shall be mixed and heat processed with high temperature-short-time equipment. After heat processing, the product shall be aseptically canned.

3.5 Finished Food Product. The finished product shall comply with the requirements of Table II.

Table II. Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) The moisture content shall not exceed 77%.
 - 3) Product shall have typical flavor, color, texture, odor, and appearance.
-

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3.6 Deliveries. All deliveries shall conform in every respect to the provision of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain five (5) ounces of product per container.

4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists for dairy products.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 203 aluminum can with full-panel pull-out lid. The interior of the pull-out and aluminum cans shall be coated with an epoxy-type enamel.

5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition, each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping containers shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

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5.1.4 Labeling. The shipping container shall be labeled with the following information:

- 1) Address of procuring agency .
- 2) Contents
- 3) Lot Number
- 4) Place of manufacturer
- 5) Date of production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping instructions

6.2 Technical Notes. None.

FMS-11

FOOD MANUFACTURING SPECIFICATIONS
POULTRY MEAT, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of canned poultry for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Chicken with Broth

Type II - Turkey with Broth

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

Regulations Governing the Grading and Inspection of Poultry and Edible Products thereof and Specifications of Classes, Standards and Grades with respect thereto.

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The product shall be manufactured from components which comply with the regulations of the Poultry Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

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- 3.2.1 Poultry Meat. Chicken and Turkey meat shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A. The meat shall be U.S. Grade B or better.
- 3.2.2 Broth. Broth shall be composed of ingredients approved for use in foods.
- 3.2.3 Salt. Salt shall be sodium chloride, and shall comply with Food Chemicals Codex identity and purity.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.
-

Table I - Product Ingredients

Type I - Boned Chicken with Broth

Chicken, Chicken Broth and salt.

Type II - Boned Turkey with Broth

Turkey, Turkey broth and salt.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Ingredients shall be combined, cooked, filled into cans, sealed and thermally processed in accordance with established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

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3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain five (5) ounces of product per container

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 203 aluminum can or a 208 x 207 steel can with a full-panel pull-out lid. The interior of the tinplate components shall be coated with an acrylic-type enamel. The interior of the pull-out and aluminum cans shall be coated with an epoxy-type enamel.

5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information.

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5.1.4 (Continued)

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

FMS-12

FOOD MANUFACTURING SPECIFICATIONS
CANNED FRUIT, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of canned fruit for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Pineapple

Type II - Mixed Fruit

Type III - Applesauce

Type IV - Diced Peaches

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Canned Pineapple

U. S. Standards for Grades of Fruit Cocktail

U. S. Standards for Grades of Canned Applesauce.

U. S. Standards for Grades of Canned Clingstone Peaches

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

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- 3.2 Materials. The products used shall be of edible grade, clean, sound, and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.
- 3.2.1 Pineapple. Diced Grade A pineapple shall be used (Type I).
- 3.2.2 Mixed Fruit. Fruit used in mixed fruit (Type II) shall be equivalent to that in Grade A fruit cocktail.
- 3.2.3 Applesauce. Grade A applesauce shall be used (Type III).
- 3.2.4 Syrup. All products shall be packed in heavy syrup ($20 \pm 2^{\circ}$ Brix) Composed of 25% corn syrup and 75% sucrose.
- 3.2.5 Ascorbic Acid. Ascorbic acid shall comply with Food Chemicals Codex.
- 3.2.6 Peaches. Diced yellow cling Grade A peaches shall be used (Type IV).
- 3.3 Formulation. Except for Type III, product formulation shall be in accordance with Table I. Type III shall be 100% applesauce.

Table I - Product Ingredients

<u>Ingredients</u>	<u>Quantity Percent by Weight</u>
Product	60%
Syrup Recovered from Drain Product	40%
	<u>100%</u>

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Fruit shall be diced, blended with other ingredients, filled into cans, sealed and thermally processed in accordance with standard industrial procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor; color; texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain five (5) ounces of product per container.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Produce for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 203 aluminum can with a full-panel pull-out lid. The interior of the aluminum cans shall be coated with an epoxy-type enamel.

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5.1.2 Labeling. Each food container shall be labeled to indicate its contents weight. In addition each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping containers shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

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FMS-13

FOOD MANUFACTURING SPECIFICATIONS
VIENNA SAUSAGE, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of vienna sausage for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Department of Agriculture

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

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients shall be clean and free from foreign materials and have a typical odor, color, and flavor.

3.2.1 Meat. Beef and pork shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.

- 3.2.2 Water. Water shall be potable.
- 3.2.3 Salt. Salt shall be sodium chloride and shall comply with requirements of Food Chemicals Codex purity and identity.
- 3.2.4 Sugar. One or more of the following sugars may be used: sucrose (liquid or granular), lactose, invert sugar, dextrose or corn syrup solids.
- 3.2.5 Flavorings. Flavorings shall be used and shall comply with U.S.D.A. requirements for use in meat products.
- 3.2.6 Sodium Erythorbate. Sodium erythorbate shall comply with Food Chemicals Codex for identity and purity.
- 3.2.7 Sodium nitrite. Sodium nitrite shall comply with Food Chemicals Codex for identity and purity.
- 3.2.8 Meat Stock. Pork and Beef stock may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.
-

Table I - Product Ingredients

Beef and Pork, water, salt, corn syrup, dextrose, flavoring, sodium erythorbate, sodium nitrite, and meat stock.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Ingredients shall be combined and comminuted, formed into sausages, cooked, cut and placed into cans, stock added, sealed and thermally processed in accordance with established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

3.5 (Continued)

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall not contain any bone, skin, or foreign material.
 - 3) Product shall have typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain five (5) ounces of product per container.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 208 aluminum can or a 208 x 207 steel can with a full-panel pull-out lid. The interior of the tinsplate components shall be coated with an acrylic-type enamel. The interior of the pull-out and aluminum cans shall be coated with an epoxy-type enamel.

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- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions
- 6.2 Technical Notes - None

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FMS-14

FOOD MANUFACTURING SPECIFICATIONS
DRINKS, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized drinks for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

- Type I - Vanilla Drink
- Type II - Dutch Chocolate Drink
- Type III - Chocolate Drink
- Type IV - Chocolate Fudge Drink

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

- U. S. Standards for Grades of Skim Milk
- Definitions and Standards of Identity for Cocoa Products

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.

- 3.2.1 Skim Milk. Skim milk shall be used as a source for milk solids and may be concentrated.
- 3.2.2 Sugar. One or more of the following sugars may be used: sucrose, (liquid or granular), lactose, invert sugar, dextrose or corn syrup solids.
- 3.2.3 Sodium Caseinate. Sodium caseinate approved for food use shall be used.
- 3.2.4 Vegetable Oil. Hydrogenated cottonseed, peanut, corn, coconut, or soy bean oil, or any combination of these may be used.
- 3.2.5 Flavors. Natural or artificial flavors approved for food use shall be used.
- 3.2.7 Cocoa. A high quality cocoa powder shall be used and shall comply with the Definitions and Standards of Identity for Cocoa Products.
- 3.2.8 Cellulose Gum. Cellulose gum shall be of Food Chemicals Codex identity and purity.
- 3.2.10 Disodium Phosphate. Disodium phosphate shall be of Food Chemicals Codex identity and purity.
- 3.2.11 Carrageenan. Concentrations of the naturally occurring salts of carrageenan may be used.
- 3.2.12 Minerals. Minerals added for the purpose as dietary supplements shall comply with Food Chemical Codex.
- 3.2.13 Vitamins. Vitamins added for the purpose as dietary supplements shall comply with Food Chemicals Codex.
- 3.3 Formulation. Formulation for these products is proprietary and is not specified. Ingredients for each product is designated in Table I.

Table I - Product Ingredients

Type I - Vanilla Drink

Concentrated skim milk, sugar, vegetable fat, edible cellulose, artificial flavor, salt, magnesium oxide, cellulose gum, sodium ascorbate, ferric orthophosphate carrageenan, a-tocopheryl acetate, niacinamide, zinc oxide, copper gluconate, calcium pantothenate, ascorbic acid, vitamin A palmitate, pyridoxine hydrochloride, riboflavin phosphate, thiamine hydrochloride, folic acid, biotin, potassium iodide, vitamin D₂, and Vitamin B₁₂.

Type II - Dutch Chocolate Drink

Concentrated skim milk, sugar, cocoa, vegetable fat, artificial color, edible cellulose, salt, magnesium oxide, cellulose gum, sodium ascorbate, ferric orthophosphate, carrageenan, α -tocopheryl acetate, niacinamide, zinc oxide, copper gluconate, calcium pantothenate, ascorbic acid, vitamin A palmitate, pyridoxine hydrochloride, riboflavin phosphate, thiamine hydrochloride, folic acid, biotin, potassium iodine, vitamin D₂, and vitamin B₁₂.

Type III - Chocolate Drink

Skim milk, sucrose, sodium caseinate, vegetable oil, cocoa, artificial flavors, magnesium sulfate, purified cellulose, sodium chloride, carboxymethyl cellulose, potassium citrate, disodium phosphate, calcium phosphate, sodium ascorbate, calcium carrageenan, zinc sulfate, Vitamin E acetate, ferric orthophosphate, niacinamide, artificial colors, calcium pantothenate, thiamine hydrochloride, cupric sulfate, riboflavin, vitamin A, pyridoxine hydrochloride, folic acid, biotin, potassium iodide, vitamin D₂, vitamin B₁₂.

Type IV - Chocolate Fudge Drink

Skim milk, sucrose, sodium caseinate, vegetable oil, cocoa, artificial flavors, magnesium sulfate, sodium chloride, purified cellulose, potassium citrate, carboxymethyl cellulose, disodium phosphate, calcium phosphate, sodium ascorbate, calcium carrageenan, artificial color, zinc sulfate, vitamin E acetate, ferric orthophosphate, niacinamide, calcium pantothenate, thiamine hydrochloride, cupric sulfate, riboflavin, vitamin A, pyridoxine hydrochloride, folic acid, biotin, potassium iodine, vitamin D₂, vitamin B₁₂.

3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.

3.4.1 Mixing and Heat Processing. Ingredients shall be mixed, filled into cans, sealed, and thermally processed in accordance with high-temperature-short-time equipment insuring commercial sterility.

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- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

- 4.1.4 Product Weight. Each serving size shall contain Ten (10) ounces of product per container.

5.0 PREPARATION FOR DELIVERY

- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

- 5.1.1 Primary Packaging. The primary container shall be a 205 x 408 or 205 x 408 tin-plated steel or aluminum can with full-panel pullout tab. The interior of the pull-out and cans shall be coated with an enamel compatible with the product.

- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions
- 6.2 Technical Notes - None

FMS-15

FOOD MANUFACTURING SPECIFICATIONS
SOUPS, DEHYDRATED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of dehydrated soups for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Spring Vegetable Soup

Type II - Green Pea Soup

Type III - Tomato Soup

Type IV - Cream of Mushroom Soup

Type V - Bean Soup

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Dairy Products

U.S. Standards for Grades of Mushrooms

U.S. Standards for Grades of Dehydrated Vegetables

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

- 3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.
- 3.2.1 Dehydrated Vegetables. Dehydrated vegetables shall be food grade.
- 3.2.2 Flavorings. An assortment of natural and artificial flavorings may be used and shall be approved for use in food.
- 3.2.3 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.4 Starch. Natural and modified starch may be used and shall be food grade.
- 3.2.5 Flour. Flour shall be food grade.
- 3.2.6 Sugar. Sugar shall be white granulated cane or beeh sugar.
- 3.2.7 Dried Corn Syrup. Dried corn syrup shall be food grade.
- 3.2.8 Vegetable Oil. Hydrogenated cottonseed, peanut, corn, coconut or soybean oil, or any combination, may be used.
- 3.2.9 Colors. Natural or artificial colors approved for food use may be used.
- 3.2.10 Butylated Hydroxyanisole. Butylated Hydroxyanisole shall comply with requirements specified in the Food Chemicals Codex.
- 3.2.11 Mono- and Diglycerides. Mono- and diglycerides shall be of the identity and purity as specified in Food Chemicals Codex.
- 3.2.12 Nonfat Dry Milk. Nonfat dry milk shall be food grade.
- 3.2.13 Butterfat. Butterfat shall be food grade.
- 3.2.14 Noodles. Noodles shall be food grade.
- 3.2.15 Dehydrated Yeast. Dehydrated yeast shall be food grade.
- 3.2.16 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein shall be food grade.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

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3.3

(Continued)

Table I - Product IngredientsType I - Spring Vegetable Soup

Dehydrated vegetables, (potatoes, carrots, green beans, red and green bell peppers, tomatoes, and onions), enriched egg noodles, natural flavor, salt, potato starch, flour, sugar, hydrogenated vegetable oil, monosodium glutamate, starch, dehydrated garlic, artificial color, dehydrated parsley.

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Type II - Green Pea Soup

Green Split Peas, malto-dextrin, salt, dehydrated yeast, hydrogenated vegetable oil, imitation ham flavors, potato starch, modified starch, sugar, monosodium glutamate, hydrolyzed vegetable protein, vegetable gum, flavorings, and BHA.

Type III Tomato Soup

Dehydrated Tomatoes, dried corn syrup, modified food starch, sugar, salt, nonfat dry milk, hydrogenated vegetable oil, monosodium glutamate, butterfat, natural flavorings, dehydrated onions, mono and diglycerides (aids dissolving), artificial color, dehydrated garlic.

Type IV - Cream of Mushroom Soup

Spray dried vegetable fat (vegetable fat, corn syrup, solids, sodium caseinate, mono and diglycerides, dipotassium phosphates, sodium silico aluminate, artificial flavor and color), modified starch, whey solids, nonfat dry milk solids, monosodium glutamate, salt, vegetable gum, natural and artificial flavors, buttermilk solids, dehydrated mushrooms, caramel color.

Type V - Bean Soup

Dehydrated beans, malto-dextrin, salt, hydrogenated vegetable oil, hydrolyzed vegetable protein, monosodium glutamate, imitation flavor, dehydrated tomato, potato starch, vegetable gum, sugar, dehydrated onions, nonfat dry milk solids, flavorings.

3.4

Processing. Components complying with 3.2 shall be processed in a manner which produces a uniform blend of product which is free flowing.

3.5 Finished product. The finished product shall comply with the requirements of Table II.

Table II - Finished Product Requirements

- 1) Approximately 13.0 grams of product (Type I - Spring Vegetable Soup) shall be rehydrated within 5 minutes upon the addition of 6.0 fluid ounces of boiling water.
 - 2) Approximately 28.5 grams of product (Type II - Green Pea Soup) shall be rehydrated within 5 minutes upon the addition of 6.0 fluid ounces of boiling water.
 - 3) Approximately 21.5 grams of product (Type III - Tomato Soup) shall be rehydrated within 5 minutes upon the addition of 6.0 fluid ounces of boiling water.
 - 4) Approximately 17.0 grams of product (Type IV - Cream of Mushroom Soup) shall be rehydrated within 5 minutes upon the addition of 6.0 fluid ounces of boiling water.
 - 5) Approximately 28.5 grams of product (Type V - Bean Soup) shall be rehydrated within 5 minutes upon the addition of 6.0 fluid ounces of boiling water.
 - 6) Product shall not exceed 5.0 percent moisture.
 - 7) The rehydrated product shall have typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain:
- Type I - 13.0 grams of product per container
 - Type II - 28.5 grams of product per container
 - Type III - 21.5 grams of product per container
 - Type IV - 17.0 grams of product per container
 - Type V - 28.5 grams of product per container
- 4.1.5 Moisture Content. The analysis for moisture content shall be determined according to the Methods of Analysis of the Association Of Official Analytical Chemists.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.

5.1.4 (Continued)

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - This product shall have an acceptable shelf-life of 18 months.

FMS-16

FOOD MANUFACTURING SPECIFICATIONS
STEWED TOMATOES, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of stewed tomatoes for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein.

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

Bacteriological Analytical Manual for Foods

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Sample. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients and materials shall be free from foreign materials and have a typical odor, color and flavor.

3.2.1 Tomatoes. Whole or almost whole tomatoes may be used and can be less than 70% of the tomatoes used.

3.2.2 Tomato Juice. Tomato juice may be used as an optional ingredient.

3.2.3 Sugar. Sugar shall be white granulated cane or beet sugar.

3.2.4 Dextrose. Dextrose shall be food grade.

3.2.5 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.

3.2.6 Dried Onions. Dried onions shall be food grade.

3.2.7 Dried Celery. Dried celery shall be food grade.

3.2.8 Dried Green Peppers. Dried green peppers shall be food grade.

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- 3.2.9 Spices. An assortment of natural spices may be used and shall be approved for use in food.
- 3.2.10 Calcium Salt. Calcium salt may be calcium chloride or calcium phosphate or other calcium salts used singly or in combination. Products shall comply with the requirements specified in Food Chemicals Codex.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Tomatoes, tomato juice, sugar, dextrose, salt, dried onions, dried celery, dried green peppers, spice, and calcium salts (trace).

-
- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Ingredients shall be combined, canned and thermally processed.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

Table II - Finished Product Requirements

- 1) Approximately 5 oz. of product shall constitute one serving per container.
- 2) Product shall have typical flavor, color, texture, odor, and appearance.

-
- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS

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- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain five (5) ounces of product per container.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary container shall be a 208 x 203 aluminum can with a full-panel pull-out lid. The interior of the pull-out and aluminum cans shall be coated with an epoxy-type enamel.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer

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5) Date of Production

6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

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FOOD MANUFACTURING SPECIFICATIONS
CANNED VEGETABLES, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of canned vegetables for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Green Beans

Type II - Peas

Type III - Mixed Vegetables

Type IV - Corn

Type V - Cream Style Corn

Type VI - Sweet Potatoes

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Canned Green Beans

U.S. Standards for Grades of Canned Peas

U.S. Standards for Grades of Canned Mixed Vegetables

U.S. Standards for Grades of Canned Corn

U.S. Standards for Grades of Canned Cream Style Corn

U.S. Standards for Grades of Canned Sweet Potatoes

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

- 3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.
- 3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.
- 3.2.1 Green Beans. Cut Grade A green beans shall be used (Type I).
- 3.2.2 Peas. Grade A sweet peas shall be used (Type II).
- 3.2.3 Mixed Vegetables. Grade A mixed vegetables shall be used (Type III).
- 3.2.4 Corn. Grade A corn shall be used (Type IV).
- 3.2.5 Cream Style Corn. Cream style corn shall be Grade A (Type V).
- 3.2.6 Sweet Potatoes. Sweet Potatoes shall be Grade A (Type VI).
- 3.2.7 Salt. Salt shall comply with Food Chemicals Codex for identity and purity.
- 3.2.8 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.2.9 Starch. Food grade starch shall be used.
- 3.3 Formulation. Formulation is not specified but shall closely resemble standard commercial formulations currently used.
- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Vegetables shall be washed, cleaned, diced and blended with other ingredients, filled into cans, sealed, and thermally processed in accordance with standard industrial procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table I.

Table I - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain five (5) ounces of product per container.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary container shall be a 208 x 203 aluminum can or a 208 x 207 steel can with a full-panel pull-out lid. The interior of the tinplate components shall be coated with an acrylic-type enamel. The interior of the pull-out and aluminum cans shall be coated with an epoxy-type enamel.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

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5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacture
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

FMS-18

FOOD MANUFACTURING SPECIFICATIONS
BEEF STEW, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized beef stew for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Department of Agriculture

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

2.2 Other Publications

U. S. Department of Health, Education And Welfare

Federal Food, Drug and Cosmetic Act and Regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations of the Meat Inspection Division, U. S. Department of Agriculture. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

3.2.1 Beef. Meat shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, United States Department of Agriculture (U.S.D.A.).

3.2.2 Vegetables. Vegetables shall be of high quality. Vegetables used may be fresh, frozen or dehydrated.

3.2.3 Starch. Starch shall be food grade.

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- 3.2.4 Salt. Salt shall be sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.5 Colors. Natural or artificial colors approved for food use may be used.
- 3.2.6 Flavors. Natural and artificial flavorings approved for food use may be used.
- 3.2.7 Hydrolyzed Plant Protein. Hydrolyzed plant protein may be used and shall be food grade.
- 3.2.8 Other Additives. All additives shall be those approved by the Consumer Marketing Service, U.S.D.A.
- 3.3 Formulation. Formulation is proprietary and is not specified. Ingredients are designated in Table I.
-

Table I - Product Ingredients

Gravy (Water, tomatoes, corn starch, salt, hydrolyzed plant protein, flavorings, caramel, color and monosodium glutamate), beef, soaked dehydrated potatoes, soaked dehydrated carrots, and soaked dried peas.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Mixing and Heat Processing. Ingredients shall be combined, cooked, filled into cans, sealed and thermally processed in accordance with established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS.
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 7 1/2 ounces of product per container.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary container shall be a 208 x 203 or 208 x 208 tin-plated steel or aluminum can with full-panel pullout lid. The interior of the pull-out and cans shall be coated with an enamel compatible with the product.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

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5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

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FMS-19

FOOD MANUFACTURING SPECIFICATIONS
LIMA BEANS AND HAM, THERMOSTABILIZED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of thermostabilized lima beans and ham for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Lima Beans

U.S. Standards for Grades of Tomatoes

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

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U.S. Department of Health, Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

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- 3.2.1 Ham and Bacon. Ham and bacon shall be prepared and processed only in a plant which is operated under the continuous inspection of Consumer Marketing Service, U.S.D.A.
- 3.2.2 Tomatoes. Tomatoes shall comply with the requirements of the U.S. Standards.
- 3.2.3 Beans. U.S. #1 beans shall be used.
- 3.2.4 Distilled Vinegar. Distilled vinegar shall be of high quality and approved for food use.
- 3.2.5 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.6 Sugar. Sugar shall be of high quality and may be either brown sugar or molasses.
- 3.2.7 Flavorings. Natural or artificial flavor may be used and shall be food grade.
- 3.2.8 Spices. Spices approved for food use may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Beans, water, ham, tomatoes, bacon, sugar, flavoring, molasses, onion, modified food starch, salt, hydrolyzed vegetable protein, brown sugar, vinegar, paprika dextrose, sodium phosphate, sodium erythrobate, sodium nitrate.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Heat Processing. The cooked product shall be filled into cans, sealed and thermally processed in accordance with standard established procedures insuring commercial sterility.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II - Finished Product Requirements

- 1) Product shall comply with requirements of commercial sterility for thermostabilized foods.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 7 1/2 ounces of product per container.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary container shall be a 208 x 208 tin-plated steel or aluminum can with full-panel pullout lid. The interior of the pullout and cans shall be coated with an enamel compatible with the product.

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5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition, each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information:

- 1) Address of procuring agency
- 2) Contents
- 3) Lot number
- 4) Place of manufacturer
- 5) Date of production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping instructions

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6.2 Technical Notes. The product shall be from the freshest lot available from the manufacturer.

FOOD MANUFACTURING SPECIFICATION
ORANGE DRINK, NATURAL FRUIT FLAVORED, POWDERED

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1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of powdered natural orange flavored drink for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein.

2.2 Other Publications

Association of Official Analytical Chemists

Official Methods of Analysis

U. S. Department of Health, Education and Welfare

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Sample. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

3.2.1 Sugar. Sugar shall be white granulated cane or beet sugar.

3.2.2 Citric Acid. Citric acid shall comply with requirements specified in the Food Chemicals Codex.

3.2.3 Calcium Phosphate. Tricalcium phosphate shall be used and shall comply with requirements specified in the Food Chemicals Codex.

3.2.4 Starch. Modified starches may be used and shall be food grade.

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- 3.2.5 Potassium Citrate. Potassium Citrate shall comply with requirements specified in the Food Chemicals Codex.
- 3.2.6 Cellulose Gum. Cellulose gum shall comply with requirements specified in the Food Chemicals Codex.
- 3.2.7 Flavors. Natural or artificial flavors approved for food use may be used.
- 3.2.8 Citric Acid. Citric acid shall comply with requirements specified in the Food Chemicals Codex.
- 3.2.9 Vegetable Oils. Hydrogenated cottonseed, peanut, corn, coconut or soybean oil, or any combination, may be used.
- 3.2.10 Colors. Natural or artificial colors approved for food use may be used.
- 3.2.11 Vitamin A. Vitamin A shall comply with requirements specified in the Food Chemicals Codex.
- 3.2.12 Butylated Hydroxyanisole. Butylated Hydroxyanisole shall comply with the requirements specified in the Food Chemicals Codex.
- 3.2.13 Vitamin C. Vitamin C shall comply with requirements specified in the Food Chemicals Codex.
- 3.3 Formulation. Formulation for this product is proprietary and is not specified. Ingredients are designated in Table I.
-

Table I - Product Ingredients

Sugar citric acid, calcium phosphate, modified starches, potassium citrate, cellulose gum, natural orange flavor, vitamin C, hydrogenated coconut oil, artificial flavor, artificial color, Vitamin A, and BHA.

- 3.4 Processing. Components complying with 3.2 shall be processed in manner which produces a uniform blend and is free flowing.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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Table II - Finished Product Requirements

- 1) The moisture content shall not exceed 20%
- 2) Approximately 33.0 grams of product shall be rehydrated within 5 minutes with the addition of 8 fluid oz. of cold water with gentle swirling.
- 3) The rehydrated product shall have a typical flavor, color, texture, odor, and appearance.

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 33.0 grams of product per package.

4.1.5 Moisture. The analysis for moisture content shall be determined according to the Official Methods of Analysis of the Association of Official Analytical Chemists, Chapter - Gelatin, Dessert Preparations and Mixes.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food package shall be labeled to indicate its contents and contents weight. In addition each package shall be labeled with preparation instructions which include quantity of water required for rehydration and rehydration time.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions

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6.2 Technical Notes

6.2.1 Special Handling. The product shall be handled in areas having 55% relative humidity or less.

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FOOD MANUFACTURING SPECIFICATIONS
DRINKS, INSTANT, DEHYDRATED

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1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of Dehydrated Instant Drinks for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Instant Chocolate Drink

Type II - Instant Strawberry Drink

Type III - Instant Vanilla Drink

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Instant Nonfat Dry Milk

Definitions and Standards of Identity for Cocoa Products

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.

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- 3.2.1 Nonfat Dry Milk. The nonfat dry milk shall be instantized and shall be extra grade.
- 3.2.2 Sugar. One or more of the following sugars may be used: sucrose (liquid or granular), lactose, invert sugar, dextrose or corn syrup solids.
- 3.2.3 Cocoa. A high quality cocoa powder shall be used and shall comply with the Definitions and Standards of Identity for Cocoa products.
- 3.2.4 Soy Protein. Isolated soy protein shall be food grade.
- 3.2.5 Sodium Caseinate. Sodium caseinate approved for food use shall be used.
- 3.2.6 Lecithin. Lecithin shall be of Food Chemicals Codex identity and purity.
- 3.2.7 Magnesium Hydroxide. Magnesium hydroxide shall be of Food Chemicals Codex identity and purity.
- 3.2.8 Carrageenan. Ammonium Carrageenan shall be of Food Chemicals Codex identity and purity.
- 3.2.9 Flavors. Natural and artificial flavors may be used and shall be approved for use in food.
- 3.2.10 Sodium Ascorbate. Sodium Ascorbate shall be of Food Chemicals Codex identity and purity.
- 3.2.11 Vitamins. Vitamins shall be used and shall be approved for use in food.
- 3.2.12 Color. Natural and artificial colors may be used and shall be approved for use in food.
- 3.2.13 Citric Acid. Citric acid shall be of Food Chemicals Codex identity and purity.
- 3.3 Formulation. Formulation for instant breakfast is not specified but shall closely resemble standard commercial formulation currently used. Ingredients are designated in Table I. Formulation for the complete products is presented in Table II.

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3.3 (Continued)

Table I - Product Ingredients

Type I - Instant Chocolate Drink

Chocolate Instant Breakfast (Nonfat dry milk, sucrose, cocoa, corn syrup solids, lactose, isolated soy protein, sodium caseinate, lecithin, magnesium hydroxide, ammonium carrageenan, artificial flavors, sodium ascorbate, vitamin E acetate, ferrous fumarate, vitamin A, niacinamide, zinc oxide, calcium pantothenate basic copper carbonate, thiamine mononitrate, pyridoxine hydrochloride, folic acid) Nonfat Dry Milk fortified with vitamins A and D.

Type II - Instant Strawberry Drink

Strawberry Instant Breakfast (Nonfat dry milk, sucrose, corn syrup solids, lactose, sodium citrate, magnesium hydroxide, artificial flavors, sodium ascorbate, ammonium carrageenan, vitamin E acetate, ferrous fumarate, citric acid, artificial color, vitamin A, niacinamide, calcium pantothenate, thiamine mononitrate, basic copper carbonate, pyridoxine hydrochloride, folic acid) Nonfat Dry Milk fortified with vitamins A and D.

Type II - Instant Vanilla Drink

Vanilla Instant Breakfast (Nonfat dry milk, sucrose, corn syrup solids, lactose, magnesium hydroxide, ammonium carrageenan, artificial flavors [including vanillin and ethyl vanillin], sodium ascorbate, vitamin E acetate, ferrous fumarate, vitamin A, niacinamide, calcium pantothenate, thiamine mononitrate, basic copper carbonate, pyridoxine hydrochloride, folic acid). Nonfat Dry Milk fortified with vitamins A and D.

Table II Product Formula

<u>Ingredients</u>	<u>Quantity (Percent by Weight)</u>
Flavored Instant Breakfast	62.17
Nonfat Dry Milk	37.83
	<u>100.00</u>

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3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.

3.4.1 Blending. The nonfat dry milk and flavored instant breakfast shall be blended in a Kelly-Patterson blender or equivalent to obtain a uniform blend.

3.5 Finished Product. The finished product shall comply with the requirements of Table III.

Table III - Finished Product Requirements

- 1) Moisture content shall not exceed 5.0 percent.
- 2) Approximately 60.0 grams of product shall be rehydrated within 5 minutes upon the addition of 8.0 fluid ounces of cold water with gentle swirling.
- 3) The rehydrated product shall have typical flavor, color, texture, odor, and appearance.

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 60.0 grams of product per container.

4.1.5 Moisture. The analysis for moisture content shall be made in accordance with the official Methods of Analysis of the Association of Official Analytical Chemists for Dairy Products (Dried Milk and Malted Milk).

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

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- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions
- 6.2 Technical Notes

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- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions

6.2 Technical Notes

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FOOD MANUFACTURING SPECIFICATION
POTATOES AND BEEF WITH ONIONS, FREEZE-DRIED

9/1/75

FMS-22

FOOD MANUFACTURING SPECIFICATION
POTATOES AND BEEF WITH ONIONS, FREEZE-DRIED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried potatoes and beef with onions for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Department of Agriculture

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

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U.S. Department of Health, Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

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- 3.2.1 Beef. Cooked beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.
- 3.2.2 Onion. Dehydrated onion and onion powder may be used and shall be of high quality.
- 3.2.3 Potatoes. Potatoes shall be of high quality either fresh or frozen.
- 3.2.4 Sugar. Sugar shall be of high quality and approved for food use.
- 3.2.5 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.6 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.7 Monosodium Glutamate. Monosodium Glutamate shall be of Food Chemicals Codex identity and purity.
- 3.2.8 Spices. Spices approved for food use may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Potatoes, beef, dehydrated onions, salt, hydrolyzed vegetable protein, monosodium glutamate, spices and sugar.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Freeze-Drying. After the product has been cooked, it shall be cooled and frozen. Subsequently, it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
 - 2) Oxygen content of packaged product shall not exceed 2.0 percent.
 - 3) Approximately 2.0 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
 - 4) The rehydrated product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 2.0 ounces of product per container.
- 4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.
- 5.0 PREPARATION FOR DELIVERY

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- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition, each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information:
- 1) Address of procuring agency
 - 2) Contents
 - 3) Lot number
 - 4) Place of manufacturer
 - 5) Date of production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required

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6.1 (Continued)

4) Amount of product required

5) Shipping instructions

6.2 Technical Notes. The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

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FMS-23

**FOOD MANUFACTURING SPECIFICATION
BEEF AND RICE WITH ONIONS, FREEZE-DRIED**

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9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried beef and rice with onions for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Department of Agriculture

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

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

- 3.2.1 Beef. Cooked beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.
- 3.2.2 Onion. Dehydrated onion and onion powder may be used and shall be of high quality.
- 3.2.3 Rice. Instant rice shall be used.
- 3.2.4 Starch. Modified food starch shall be of high quality and approved for food use.
- 3.2.5 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.6 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.7 Monosodium Glutamate. Monosodium Glutamate shall be of Food Chemicals Codex identity and purity.
- 3.2.8 Spices. Spices approved for food use may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Beef, instant rice, dehydrated onions, modified corn starch, salt, hydrolyzed vegetable protein, spices, onion powder and monosodium glutamate.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Freeze-Drying. After the product has been cooked it shall be cooled and frozen. Subsequently it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

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3.5 (Continued)

Table II - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
 - 2) Oxygen content of packaged product shall not exceed 2.0 percent.
 - 3) Approximately 2.4 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
 - 4) The rehydrated product shall have typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 2.4 ounces of product per container.

4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.

5.0 PREPARATION FOR DELIVERY

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- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required

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6.1 (Continued)

4) Amount of product required

5) Shipping Instructions

6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

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FMS-24

FOOD MANUFACTURING SPECIFICATIONS

CHICKEN STEW, FREEZE-DRIED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried chicken stew for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Nonfat Dry Milk

U.S. Standards for Grades of Potatoes

U.S. Standards for Grades of Peas

U.S. Standards for Grades of Carrots

Regulations Governing the Grading and Inspection of Poultry and Edible Products thereof and U.S. Specifications of Classes, Standards and Grades with respect thereto

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

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- 3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Poultry Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color and flavor.
- 3.2.1 Chicken and Chicken Fat. Poultry products shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A. Poultry meat shall be U.S. Grade B or better.
- 3.2.2 Vegetables. All vegetables shall comply with the requirements of the U.S. Standards for each vegetable.
- 3.2.3 Corn Oil. Corn oil shall be of high quality.
- 3.2.4 Nonfat Dry Milk. Nonfat dry milk shall be grade A.
- 3.2.5 Starch. Modified food starch shall be of high quality and approved for food use.
- 3.2.6 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.7 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.8 Sugar. Sugar shall be white granulated beet or cane sugar.
- 3.2.9 Monosodium Glutamate. Monosodium glutamate shall be of Food Chemical Codex identity and purity.
- 3.2.10 Spices and Flavorings. Natural and artificial spices and flavorings approved for food use may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Potatoes, cooked chicken, carrots, peas, corn oil, nonfat dry milk, modified corn starch, salt, hydrolyzed vegetable protein, dehydrated onions, chicken fat, sugar, monosodium glutamate, spices and garlic powder.

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- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Freeze-Drying. After the product has been cooked, it shall be cooled and frozen. Subsequently, it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
 - 2) Approximately 1.8 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
 - 3) Oxygen content of packaged product shall not exceed 2.0 percent.
 - 4) The rehydrated product shall have a typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

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- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 1.8 ounces of product per container.
- 4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.

5.0 PREPARATION FOR DELIVERY

- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition, each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information:
- 1) Address of procuring agency
 - 2) Contents
 - 3) Lot number
 - 4) Place of manufacturer
 - 5) Date of production
 - 6) Amount included in shipment

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5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping instructions

6.2 Technical Notes. The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

FMS-25

FOOD MANUFACTURING SPECIFICATIONS
VEGETABLE STEW WITH BEEF, FREEZE-DRIED

9/1/75

1.0 SCOPE

- 1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of vegetable stew with beef for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

- 2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Potatoes

U. S. Standards for Grades of Peas

U.S. Standards for Grades of Carrots

U.S. Standards for Grades of Corn

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

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

- 3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

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- 3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U. S. Department of Health Education and Welfare, or regulations the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.
- 3.2.1 Beef. Cooked beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.
- 3.2.2 Vegetables. All vegetables shall comply with the requirements of the U. S. Standards for each vegetable.
- 3.2.3 Corn Oil. Corn oil shall be of high quality.
- 3.2.4 Starch. Modified food starch shall be of high quality and approved for food use.
- 3.2.5 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.6 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.7 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.2.8 Monosodium Glutamate. Monosodium glutamate shall be of Food Chemicals Codex identity and purity.
- 3.2.9 Spices. Spices approved for food use may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.
-

Table I - Product Ingredients

Potatoes, peas, cooked beef, carrots, corn, corn oil, modified corn starch, hydrolyzed vegetable protein, dehydrated onions, salt, monosodium glutamate, sugar and spices.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.

- 3.4.2 Freeze-Drying. After the product has been cooked it shall be cooled and frozen. Subsequently it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

Table II- Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
- 2) Oxygen content of packaged product shall not exceed 2.0 percent.
- 3) Approximately 1.7 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
- 4) The rehydrated product shall have a typical flavor, color, texture, color, and appearance.

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- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 1.7 ounces of product per container.

4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.

5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

FMS-26

FOOD MANUFACTURING SPECIFICATIONS
NOODLES AND STROGANOFF SAUCE WITH BEEF, FREEZE-DRIED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried noodles and stroganoff sauce with beef for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Mushrooms

U.S. Standards for Grades of Dairy Products

U.S. Standards for Grades of Macaroni Products

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

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

- 3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Food and Drug Administration, U.S. Department of Health, Education and Welfare, or regulations of the Meat Inspection Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.
- 3.2.1 Beef. Cooked beef shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A.
- 3.2.2 Corn Oil. Corn oil shall be of high quality.
- 3.2.3 Starch. Modified food starch shall be of high quality and approved for food use.
- 3.2.4 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.5 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.6 Noodles. Noodles shall be of high quality and comply with requirements of Standards for Macaroni Products.
- 3.2.7 Sour Cream. Sour cream shall be of a high quality grade and comply with requirements of Standard for Dairy Products.
- 3.2.8 Nonfat Dry Milk. Nonfat dry milk shall be of high quality food grade.
- 3.2.9 Mushrooms. Mushrooms shall be of high quality and comply with the requirements of Standard for Mushrooms.
- 3.2.10 Dehydrated Onions. Dehydrated onion shall be of high quality.
- 3.2.11 Malic Acid. Malic acid shall comply with the requirements of Food Chemicals Codex identity and purity.
- 3.2.12 Monosodium Glutamate. Monosodium glutamate shall be of Food Chemicals Codex identity and purity.
- 3.2.13 Spices. Spices approved for food use may be used.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Noodles, beef, sour cream, mushrooms, modified corn starch, corn oil, nonfat dry milk, dehydrated onions, salt, hydrolyzed vegetable protein, monosodium glutamate, spice, malic acid, garlic powder, caramel color.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.
- 3.4.2 Freeze-Drying. After the product has been cooked, it shall be cooled and frozen. Subsequently, it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
 - 2) Oxygen content of packaged product shall not exceed 2.0 percent.
 - 3) Approximately 1.8 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
 - 4) The rehydrated product shall have a typical flavor, color, texture, color, and appearance.
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- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

- 4.1.4 Product Weight. Each serving size shall contain 1.8 ounces of product per container.
- 4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition, each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information:
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of manufacturer
 - 5) Date of production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping instructions

6.2 Technical Notes. The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

FMS-27

**FOOD MANUFACTURING SPECIFICATION
RICE AND CHICKEN, FREEZE-DRIED**

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried Rice and Chicken for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Canned Pimientos

U. S. Standards for Grades of Rice and Rice Products

Regulations Governing the Grading and Inspection of Poultry and Edible Products thereof and U. S. Specifications of Classes, Standards and Grades with respect thereto.

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Poultry Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

- 3.2.1 Rice. Instant rice shall be used and shall be of high quality.
- 3.2.2 Chicken. Poultry shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A. Poultry meat shall be U. S. Grade B or better.
- 3.2.3 Corn Oil. Corn oil shall be of high quality.
- 3.2.4 Pimientos. Pimientos shall be cut or diced and shall meet the requirement of Grade C or better.
- 3.2.5 Salt. Salt shall be sodium chloride of Food Chemical Codex identity and purity.
- 3.2.6 Starch. Modified starch shall be of high quality and approved for food use.
- 3.2.7 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.8 Monosodium Glutamate. Monosodium glutamate shall comply with requirements of Food Chemicals Codex.
- 3.2.9 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.2.10 Colors. Natural and artificial colors approved for food use may be used.
- 3.2.11 Seasonings and Spices. Seasonings and spice shall be of high quality food grade.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Instant rice, cooked chicken, corn oil, pimientos, salt, modified corn starch, hydrolyzed vegetable protein, monosodium glutamate, chicken fat, sugar, onion powder, spices and turmeric.

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- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.

- 3.4.2 Freeze-Drying. After the product has been cooked it shall be cooled and frozen. Subsequently it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

Table II- Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
- 2) Oxygen content of packaged product shall not exceed 2.0 percent.
- 3) Approximately 2.4 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
- 4) Product shall have a typical flavor, color, texture, color, and appearance.

-
- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 2.4 ounces of product per container.

4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.

5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

FMS-28

FOOD MANUFACTURING SPECIFICATION

CHICKEN PILAF, FREEZE-DRIED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried chicken pilaf for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Canned Pimientos

U.S. Standards for Grades of Rice and Rice Products

Regulations Governing the Grading and Inspection of Poultry and Edible Products thereof and U.S. Specifications of Classes, Standards and Grades with respect thereto

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. The products shall be manufactured from components which comply with the regulations of the Poultry Division, U.S.D.A. All ingredients and materials shall be clean and free from foreign materials and have a typical odor, color, and flavor.

- 3.2.1 Rice. Instant rice shall be used and shall be of high quality.
- 3.2.2 Chicken and Chicken Fat. Poultry shall be prepared and processed only in a plant which is operated under the continuous inspection of the Consumer Marketing Service, U.S.D.A. Poultry meat shall be U.S. Grade B or better.
- 3.2.3 Corn Oil. Corn oil shall be of high quality.
- 3.2.4 Pimientos. Pimientos shall be cut or diced and shall meet the requirement of Grade C or better.
- 3.2.5 Salt. Salt shall be sodium chloride of Food Chemical Codex identity and purity.
- 3.2.6 Starch. Modified starch shall be of high quality and approved for food use.
- 3.2.7 Hydrolyzed Vegetable Protein. Hydrolyzed vegetable protein may be used and shall be food grade.
- 3.2.8 Monosodium Glutamate. Monosodium glutamate shall comply with requirements of Food Chemicals Codex.
- 3.2.9 Sugar. Sugar shall be white granulated cane or beet sugar.
- 3.2.10 Colors. Natural and artificial colors approved for food use may be used.
- 3.2.11 Seasonings and Spices. Seasonings and spice shall be of high quality food grade.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Instant rice, cooked chicken, corn oil, pimiento, modified corn starch, salt, hydrolyzed vegetable protein, monosodium glutamate, chicken fat, sugar, spices, turmeric.

- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1 and 3.4.2.
- 3.4.1 Cooking. All ingredients shall be combined and cooked for a sufficient amount of time.

- 3.4.2 Freeze-Drying. After the product has been cooked, it shall be cooled and frozen. Subsequently, it shall be freeze-dried according to established commercial procedures.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.

Table II - Finished Product Requirements

- 1) Moisture content shall not exceed 4.0 percent.
- 2) Oxygen content of packaged product shall not exceed 2.0 percent.
- 3) Approximately 2.4 ounces of product shall rehydrate within 10 minutes after the addition of 6.0 fluid ounces of boiling water with gentle stirring.
- 4) Product shall have a typical flavor, color, texture, color, and appearance.

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- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 2.4 ounces of product per container.

4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.

5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition, each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information:

- 1) Address of procuring agency
- 2) Contents
- 3) Lot number
- 4) Place of manufacturer
- 5) Date of production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping instructions

6.2 Technical Notes. The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

FOOD MANUFACTURING SPECIFICATION

DESSERT BARS

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of dessert bars for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Chocolate Crunch Bar

Type II - Peanut Butter Bar

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Nonfat Dry Milk

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated hereunder

Definitions and Standards of Identity for Cocoa Products

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.

3.2.1 Sugar. One or more of the following sugars may be used: Sucrose (liquid or granular), lactose, invert sugar, dextrose or corn syrup solids.

- 3.2.2 Chocolate and Cocoa. Chocolate and cocoa shall comply with the Definitions and Standards of Identity for Cocoa Products.
- 3.2.3 Salt. Salt shall be white refined sodium chloride of Food Chemicals Codex identity and purity.
- 3.2.4 Flavors. Natural and artificial flavors approved for food use shall be used.
- 3.2.5 Nonfat Dry Mil. Nonfat dry milk shall be Grade A.
- 3.2.6 Vegetable Oil and Fat. Vegetable oil and/or vegetable fat may be used and shall be of high quality.
- 3.2.7 Antioxidants. Antioxidants shall comply with the requirements specified in Food Chemicals Codex.
- 3.2.8 Peanuts. Peanuts shall be of high quality.
- 3.2.9 Flour. Flour shall be of high quality.
- 3.2.10 Protein Isolate. Soy protein isolate may be used and shall be food grade.
- 3.2.11 Sesame Seeds. Sesame seeds shall be of high quality.
- 3.2.12 Rolled Oats. Rolled oats shall be of high quality.
- 3.2.13 Coconut. Coconut shall be of high quality.
- 3.2.14 Humectants. Humectants may be used and shall comply with Food Chemicals Codex.
- 3.2.15 Dietary Supplements. Dietary supplements shall be used and shall comply with Food Chemicals Codex.
- 3.3 Formulation. Formulation is proprietary and is not specified. Product ingredients are indicated in Table I.

Table I - Product Ingredients

Type I - Chocolate Crunch Bar

Sucrose, vegetable fat, peanuts (partially defatted), dried corn syrup, invert sugar, peanut butter, chocolate, calcium casinate, nonfat dry milk, cocoa, soy protein isolate, sesame seed, glycerine, flour, salt, artificial flavor, magnesium hydroxide, sodium ascorbate, lecithin, sodium stearyl-2-lactylate, poly-sorbate 60, sorbitan nonostearate, vitamin E, ferrous fumarate, vanillin, vitamin A, niacinamide, glyceryl mono-oleate, calcium pantothenate, propylene glycol, BHA, BHT, thiamine mononitrate, propyl gallate, citric acid, pyridoxine, hydrochloride, cyanocobalamin, cupric oxide, folic acid, riboflavin.

Type II - Peanut Butter Bar

Rolled oats, sucrose, peanut butter, vegetable fat, raisins, toasted coconut, peanuts (partially defatted), nonfat dry milk, honey, egg white, sorbitol, glycerine, vegetable oil, water, cocoa, concentrated butter, salt, magnesium hydroxide, sorbitan monostearate, polysorbate 60, lecithin, sodium ascorbate, malic acid, vitamin E, ferrous fumarate, monosodium glutamate, vanillin, vitamin A, niacinamide, calcium pantothenate, thiamine mononitrate, pyridoxine hydrochlorine, cupric oxide, cyanocobalamin, folic acid.

- 3.4 Processing. Components complying with 3.2 shall be processed in a manner which produces a uniform and acceptable product.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table II.
-

Table II - Finished Product Requirements

- 1) Product shall be sufficiently compact and covered with a chocolate coating to prevent crumbling of product.
 - 2) Product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 1½ ounces of product per container.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.
- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

FMS-30

FOOD MANUFACTURING SPECIFICATIONS

NUTS, DRY ROASTED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of dry roasted nuts for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Peanuts
Type II - Almonds

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Shelled Virginia-Type Peanuts

U. S. Standards for Grades of Shelled Almonds

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

National Research Council

Food Chemicals Codex.

Association of Official Analytical Chemists

Official Methods of Analysis.

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.

- 3.2.1 Peanuts. The peanuts used in manufacture of the product shall be shelled from cured, sound, clean Virginia-type peanuts. The shelled unroasted peanuts shall meet U. S. Medium Grade Specification and shall be spin-blanching, buffed, and be free from mold, foreign materials and contamination from insect or rodent. The unroasted peanuts shall have negative aflatoxins' tests when tested in accordance with the Peanut Advisory Committee Procedure.
- 3.2.2 Almonds. Only U. S. Fancy Grade almonds shall be used.
- 3.2.3 Salt. Salt shall comply with Food Chemicals Codex for identity and purity.
- 3.2.4 modified Starch. Modified food starch shall comply with the requirements of Food Chemicals Codex.
- 3.2.5 Vegetable Gum. Vegetable gum shall comply with Food Chemicals Codex for identity and purity.
- 3.2.6 Yeast. Yeast shall be food grade.
- 3.2.7 Herbs, Spices and Flavorings. Herbs, spices and flavorings shall be those approved for use in foods.
- 3.3 Formulation. Formulation is proprietary and is not specified.
- 3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.
- 3.4.1 Roasting. The nuts shall be cleaned and sorted. Ingredients shall be dispensed uniformly on the nuts. The nuts shall be dry roasted. After roasting, the nuts shall be inspected and filled into packages.
- 3.5 Finished Product. The finished product shall comply with the requirements of Table I.

Table I - Finished Product Requirements

- 1) Product shall be packaged either in an atmosphere of 2% nitrogen or less or vacuum packed.
 - 2) Product moisture content shall not exceed 4.0 percent.
 - 3) Product shall have typical flavor, color, texture, odor, and appearance.
-

- 3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.
- 3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.
- 4.0 QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.
- 4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.
- 4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.
- 4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.
- 4.1.4 Product Weight. Each serving size shall contain 45.0 grams of product per container.
- 4.1.5 Moisture Content. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemistry for Nut and Nut Products.
- 5.0 PREPARATION FOR DELIVERY
- 5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.
- 5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.
- 5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.

- 5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.
- 5.1.4 Labeling. The shipping container shall be labeled with the following information.
- 1) Address of procuring agency.
 - 2) Contents
 - 3) Lot Number
 - 4) Place of Manufacturer
 - 5) Date of Production
 - 6) Amount included in shipment
- 5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.
- 6.0 NOTES
- 6.1 Procurement Data. Procurement documents shall specify the following:
- 1) Title and date of specification
 - 2) Type of product required
 - 3) Preproduction sample when required
 - 4) Amount of product required
 - 5) Shipping Instructions
- 6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.
- 6.2.1 Special Handling. The product shall be vacuum packed to obtain a oxygen content of 2% or less.

FMS-31

FOOD MANUFACTURING SPECIFICATIONS

PUDDINGS, INSTANT, DEHYDRATED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of dehydrated instant pudding for use in the elderly meals system.

1.2 Classification. The products shall be of the types listed below:

Type I - Vanilla Instant Pudding

Type II - Lemon Instant Pudding

Type III - Chocolate Instant Pudding

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U.S. Standards for Grades of Instant Nonfat Dry Milk

Definitions and Standards of Identity of Cocoa Products

2.2 Other Publications

U.S. Department of Health, Education and Welfare

Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder

National Research Council

Food Chemicals Codex

Association of Official Analytical Chemists

Official Methods of Analysis

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients used shall be of edible grade, clean, sound and wholesome. They shall possess good characteristic flavor, odor, and color, and shall be free from quality defects.

- 3.2.1 Sugar. One or more of the following sugars may be used; sucrose (liquid or granular), lactose, invert sugar, dextrose or corn syrup solids.
- 3.2.2 Modified Food Starch. Modified food starch shall be tapioca or waxy maize.
- 3.2.3 Sodium Phosphate. Sodium phosphate shall comply with requirements specified in Food Chemicals Codex.
- 3.2.4 Salt. Salt shall comply with Food Chemicals Codex for identity and purity.
- 3.2.5 Hydrogenated Vegetable Oil. Hydrogenated cottonseed, peanut, corn, coconut or soybean oil, or any combination, may be used.
- 3.2.6 Mono- and Diglycerides. Mono- and diglycerides shall be of the identity and purity as specified in Food Chemicals Codex.
- 3.2.7 Flavors. Natural or artificial flavors approved for food use shall be used.
- 3.2.8 Nonfat Dry Milk. Nonfat dry milk shall be extra grade.
- 3.2.9 Colors. Natural or artificial colors approved for food use shall be used.
- 3.2.10 Vitamins. Vitamins shall comply with the requirements of Food Chemicals Codex.
- 3.2.11 Antioxidants. Butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT) may be used and shall comply with the requirements specified in Food Chemicals Codex.
- 3.2.12 Cocoa. A high quality cocoa shall be used and shall comply with the Definitions and Standards of Identity for Cocoa Products.
- 3.3 Formulation. Formulation for instant pudding and pie filling is not specified but shall closely resemble standard commercial formulations currently used. Ingredients are designated in Table I. Formulation for the complete products is presented in Table I.

Table I - Ingredients Used in Formulation

Type I - Vanilla Instant Pudding

Vanilla Instant Pudding and Pie Filling (Sugar, dextrose, modified tapioca starch, sodium phosphate, salt, hydrogenated vegetable oil with BHA, mono and diglycerides, artificial and natural flavors, nonfat dry milk, artificial color) Nonfat Dry Milk fortified with Vitamin A and D.

3.3 (Continued)

Type II - Lemon Instant Pudding

Lemon Instant Pudding and Pie Filling (sugar, dextrose, modified tapioca starch, sodium phosphates, natural flavors, hydrogenated vegetable oil, mono- and diglycerides, nonfat dry milk, artificial color, BHA) Nonfat Dry Milk fortified with vitamins A and D.

Type III - Chocolate Instant Pudding

Chocolate Instant Pudding and Pie Filling (sugar, dextrose, modified tapioca starch, cocoa processed with alkali, sodium phosphates, di- and monoglycerides, hydroxylated soybean lecithin, salt, hydrogenated soybean oil with BHA, nonfat dry milk, artificial color, artificial flavor) Nonfat Dry Milk fortified with Vitamins A and D.

Table II - Product Formula

<u>Ingredients</u>	<u>Quantity (Percent by Weight)</u>
Instant Pudding and Pie Filling	70.0
Nonfat Dry Milk	30.0
	<u>100.0</u>

3.4 Processing. Components complying with 3.2 shall be processed in accordance with 3.4.1.

3.4.1 Blending. The nonfat dry milk and instant pudding and pie filling shall be blended in a Kelley-Patterson blender or equivalent to obtain a uniform blend.

3.5 Finished Product. The finished product shall comply with the requirements of Table III.

Table III - Finished Product Requirements

- 1) Moisture content shall not exceed 5.0 percent.
- 2) Approximately 38.0 grams of product shall be rehydrated within 5 minutes upon the addition of 4.0 fluid ounces of cold water with gentle swirling.
- 3) The rehydrated product shall have typical flavor, color, texture, odor, and appearance.

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS.

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use. Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain 38.0 grams of product per container.

4.1.5 Moisture. The analysis for moisture content shall be made in accordance with the Official Methods of Analysis of the Association of Official Agricultural Chemists for Dairy Products (Dried Milk and Malted Milk).

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.

5.1.2 Labeling. Each food container shall be labeled to indicate its contents and contents weight. In addition each container shall be labeled with preparation instructions.

5.1.3 Secondary Packaging. The shipping container shall be constructed of C-flute, single wall, corrugated fiberboard. The style of the container shall be a Regular Slotted Container (RSC). The dimensions of the shipping container shall be such that the product is held securely during shipment. The Uniform Freight Classification Rule 41 should also be used to determine weight restrictions and other requirements. The shipping container shall be closed using reinforced tape.

5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
- 2) Contents
- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required
- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - None

FMS-32

FOOD MANUFACTURING SPECIFICATIONS

COTTAGE CHEESE, FREEZE DRIED

9/1/75

1.0 SCOPE

1.1 Scope. This document covers the procurement, processing, inspection, testing, storage, and packaging of freeze-dried cottage cheese for use in the elderly meals system.

2.0 APPLICABLE DOCUMENTS

2.1 The following documents form a part of this specification to the extent specified herein:

Standards

Federal

U. S. Standards for Grades of Dairy Products

2.2 Other Publications

U. S. Department of Health, Education and Welfare

Definition and Standards of Identity for Cottage Cheese

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder

Association of Official Analytical Chemists

Official Methods of Analysis

National Research Council

Food Chemicals Codex

3.0 REQUIREMENTS

3.1 Preproduction Samples. If requested, representative samples of the product which the supplier proposes to furnish shall be submitted for approval before production or assembly is commenced.

3.2 Materials. All ingredients and materials shall be clean and free from foreign materials and have a typical flavor, odor, and color.

3.3 Formulation. Formulation is proprietary for this product and is not specified.

3.4 Processing. Components complying with 3.2 shall be processed in a manner which produces a uniform product.

3.5 Finished Product. The finished product shall comply with the requirements of Table II.

Table II- Finished Product Requirements

- 1) The moisture content shall not exceed 4.0 percent.
 - 2) Approximately 1 ounce of product shall be rehydrated with the addition of 4.0 fluid oz. of cold water with gentle mixing.
 - 3) The rehydrated product shall have a typical flavor, color, texture, odor, and appearance.
-

3.6 Deliveries. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder.

3.7 Sanitary Requirements. The product shall be processed in establishments complying with Good Manufacturing Practices.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection. The supplier shall be responsible for performing the necessary inspections and examinations specified in this document.

4.1.1 Receiving Inspection. The shipping container shall be inspected to determine if any damage occurred in shipment that would cause the product to be unsafe for use: Units, so damaged, shall be rejected.

4.1.2 Microbiological Testing. If requested, representative serving size portions shall be tested.

4.1.3 Organoleptic Testing. If requested, representative serving size portions shall be tested using standard organoleptic testing procedures.

4.1.4 Product Weight. Each serving size shall contain one (1) ounces of product per container.

4.1.5 Moisture. The analysis for moisture content shall be determined according to the Official Method of Analysis of the Association of Official Analytical Chemists for Dried Milk and Malted Milk Chapter on Dairy Products.

5.0 PREPARATION FOR DELIVERY

5.1 Packaging of Product for Shipment from Supplier. The product shall be adequately packaged for protection during shipment. Packages broken or punctured during shipment shall be rejected.

5.1.1 Primary Packaging. The primary packaging shall be a heat laminated polyethylene, foil, polyethylene or cellophane material which is oxygen impermeable and capable of retaining a vacuum. The materials used shall be compatible with the product. Size of the primary package shall be dictated by bulk density of product and ease in mechanical packaging and sealing.

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5.1.4 Labeling. The shipping container shall be labeled with the following information.

- 1) Address of procuring agency.
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- 3) Lot Number
- 4) Place of Manufacturer
- 5) Date of Production
- 6) Amount included in shipment

5.2 Storage. The product shall be stored in an area which is not conducive to the deterioration of the product or product packaging.

6.0 NOTES

6.1 Procurement Data. Procurement documents shall specify the following:

- 1) Title and date of specification
- 2) Type of product required

6.1 (Continued)

- 3) Preproduction sample when required
- 4) Amount of product required
- 5) Shipping Instructions

6.2 Technical Notes - The product shall be from the freshest lot available from the manufacturer.

6.2.1 Special Handling. The product shall be vacuum packed to obtain an oxygen content of 2% or less.

APPENDIX III

Suggested Suppliers and/or Processors

For Each Menu Item with Price Quotations per Serving

APPENDIX III

SUGGESTED SUPPLIERS AND/OR PROCESSORS
FOR EACH MENU ITEM
WITH PRICE QUOTATION PER SERVING

1. Oregon Freeze Dry Foods, Inc.
 770 West 29th Avenue
 P. O. Box 1048
 Albany, Oregon 97321
 FTS-87(503)926-5811
 (503)926-6001

Menu Item	Price Quotation per Serving
Beef Almondine with Vegetables and Macaroni	\$.60
Tuna a la Neptune	.60
Peas	.60
Potatoes and Beef with Onions	.60
Beef and Rice with Onions	.60
Chicken Stew	.60
Vegetable Stew with Beef	.60
Noodles and Stroganoff Sauce with Beef	.60
Rice and Chicken	.60
Chicken Pilaf	.60
Cottage Cheese	.60

2. Campbell Soup Company
 Camden, New Jersey 08101
 FTS-87(609)693-2541
 (609)964-4000

Menu Item	Price Quotation per Serving
Spaghetti 'n Beef in Tomato Sauce	\$.30
Elbow Macaroni and Cheese	.20
Beans and Franks in Tomato Sauce	.45
Chili Con Carne	.38
Chili-Mac	.32
Chicken with Broth	.55
Turkey with Broth	.55

3. Del Monte Corporation
 205 North Wiglet Lane
 Walnut Creek, California 94598
 FTS-87(905)933-8000

Menu Item	Price Quotation per Serving
Vanilla Pudding	\$.20
Banana Pudding	.20
Tapioca Pudding	.20
Butterscotch Pudding	.20
Chocolate Fudge Pudding	.20
Rice Pudding	.20
Pineapple	.20
Mixed Fruit	.20
Applesauce	.20
Diced Peaches	.20
Stewed Tomatoes	.20
Green Beans	.20
Peas	.20
Mixed Vegetables	.20
Corn	.20
Cream Style Corn	.20
Sweet Potatoes	.20

4. Carnation Company
 5045 Wilshire Boulevard
 Los Angeles, California
 FTS-87(213)688-2000
 (213)931-1911

Menu Item	Price Quotation per Serving
Chocolate Fudge Drink	\$.35
Chocolate Drink	.35
Instant Chocolate Drink	.25
Instant Strawberry Drink	.25
Instant Vanilla Drink	.25
Chocolate Crunch Bar	.15
Peanut Butter Bar	.15

5. Nestle Company
100 Bloomingdale Road
White Plains, New York 10605
FTS-87(914)761-4250
(914)946-6400

Menu Item	Price Quotation per Serving
Hot Cocoa Drink	\$.05

6. George A. Hormel Company
1860 14th Street N.E.
P. O. Box 933
Austin, Minnesota 55912
FTS-87(612)725-4242
(507)437-5815

Menu Item	Price Quotation per Serving
Vienna Sausage	\$.45

7. Grocery Products Division
Pet Incorporated
St. Louis, Missouri 63166

Menu Item	Price Quotation per Serving
Vanilla Drink	\$.38
Dutch Chocolate Drink	.38

8. Thomas J. Lipton, Inc.
800 Sylvan Avenue
Englewood Cliffs, New Jersey 07632
FTS-87(201) 278-9500
(201)-567-8000

Menu Item	Price Quotation per Serving
Spring Vegetable Soup	\$.12
Green Pea Soup	.12
Tomato Soup	.12
Cream of Mushroom Soup	.12
Bean Soup	.12

9. California Almond Growers Exchange
1802 C Street
Sacramento, California 95808
FTS-87(916)-449-2000
(916)-442-0771

Menu Item	Price Quotation per Serving
Almonds	\$.25

10. Planters Incorporated
Division of Standard Brands Food
Dallas, Texas
FTS-87(214)-749-1011
(214)-631-6800

Menu Item	Price Quotation per Serving
Peanuts	\$.15

11. General Foods Corporation
 White Plains, New York 10625
 FTS87(914)7614250
 (914)-694-2500

Menu Item	Price Quotation per Serving
Orange Drink	\$.05
Vanilla Instant Pudding	.15
Lemon Instant Pudding	.15
Chocolate Instant Pudding	.15

12. Riviana Foods Incorporated/Austex Division
 P. O. Box 3636
 Houston, Texas 77058
 (713)-529-3251

Menu Item	Price Quotation per Serving
Beef Stew	\$.35
Lima Beans and Ham	.35

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>13. Continental Can Company, Inc. Either/or
 1350 West 76th Street
 Chicago, Illinois 60620
 FTS-87(312)353-4000
 (312)846-7000</p> | <p>14. Hormel Company
 1816 4th Street N.E.
 P. O. Box 933
 Austin, Minnesota 55912
 FTS-87(612)725-4242
 (507)437-5819</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Menu Item	Price Quotation per Serving
Meatballs with Barbecue Sauce	\$.85*
Ham and Chicken Loaf	.85*
Beans with Tomato Sauce	.80*
Fruits-Applesauce and Pineapple	.75*
Vegetables	.75*
Chicken a la King	.85*

*Prices based on full production commercial runs for the retortable flexible pouch. Prices will increase significantly for small production runs.

APPENDIX IV

**Suggested Suppliers and Price Quotations
For Packaging Materials**

APPENDIX IV

Suggested Suppliers and Price Quotations
For Packaging Materials

1. Carton Sales Company
3012 Canal Street
Houston, Texas 77003
(713)227-9880
Mr. J. T. McSpadden

<u>Item</u>	<u>Price Quotation</u>
Secondary Meal Container	\$ 500.00/1000

2. The Huckster Company
7817 Oak Vista
Houston, Texas 77017
(713)644-8277

<u>Item</u>	<u>Price Quotation</u>
Polyethylene Bags, Clear	\$ 41.20/1000

3. Moore Paper Company
100 Hogan
Houston, Texas 77009
Mr. McGowen
(713)228-9191

<u>Item</u>	<u>Price Quotation</u>
Single Wall 200# Test C-Flute Corrugated Sheets for Multi-day Meal Packages.	\$ 326.75/1000

4. Allied Tape and Strapping Company, Inc.
3201 Sherman
Houston, Texas 77003
(713)229-9691

<u>Item</u>	<u>Price Quotation</u>
1/2" Polypropylene Strapping (5,200' Roll)	\$ 41.00/roll
1/2" Metal Clips (3,000 per box)	\$ 22.50/box
Tensioning Tool	\$ 88.25/ea.
Crimper Tool	\$ 44.25/ea.