**METRIC**

**A-A-20362**
**April 30, 2013**

# COMMERCIAL ITEM DESCRIPTION

# READY-TO-USE SUPPLEMENTARY FOOD (RUSF)

**The U.S. Department of Agriculture (USDA) has authorized the use of this Commercial Item Description (CID).**

**1. SCOPE.** This CID covers ready-to-use supplemental food (RUSF), a lipid nutrient paste packaged in pouches, suitable for use by supplementary feeding programs to treat moderate acute malnutrition (MAM) in any cultural setting. The RUSF is expected to be used as part of a program that includes supplementary feeding for targeted populations, principally children from six months to five years of age who are moderately malnourished and are free from severe medical complications. The RUSF may be used in climatic extremes from the arctic to tropical zones. The RUSF is expected to supplement local diet (including breast milk for infants and young children) during the period of use and to provide adequate energy, protein, fat, vitamins, and minerals to promote recovery from MAM.

**2. BACKGROUND.** Moderate Acute Malnutrition (MAM), or moderate wasting, is defined as a weight-for-height between -3 and -2 z-scores or a middle upper arm circumference (MUAC) of 11.5-12.5 cm. MAM affects large numbers of children under five years of age in countries with high levels of poverty placing them at increased risk of mortality. MAM increases the risk of death from common diseases and, if not adequately treated, may worsen, resulting in severe acute malnutrition (severe wasting and/or oedema) which are life threatening conditions. Therefore the management of MAM is a public health priority and a number of organizations have begun efforts to develop programmatic responses to the treatment and prevention of MAM. The World Health Organization (WHO) has convened two workshops between 2008 and 2010 to consult experts on the dietary as well as programmatic management of MAM, and has published a technical note on the formulation of supplementary foods for the treatment of moderate malnutrition.[1] This CID is based on the WHO technical note.

## 3. PURCHASER NOTES.

### 3.1 Purchasers *shall* specify the following:

- When the RUSF fortification is different than specified (Sec. 6.2).
- When product standard is not required (Sec. 6.5).
- When proximate and microbiological requirements are different than specified (Sec. 7.1).

[1] WHO. Technical note: supplementary foods for the management of moderate acute malnutrition in infants and children 6-59 months of age. Geneva, World Health Organization, July, 2012. http://apps.who.int/iris/bitstream/10665/75836/1/9789241504423_eng.pdf.

- When proximate and microbiological requirements do not need to be verified (Sec. 7.1).
- When proximate and microbiological requirements need to be verified by USDA (Sec. 7.2).
- When packaging examinations do not need to be verified by USDA (Sec. 8).
- Manufacturer's certification (Sec. 12.3) or USDA certification (Sec. 12.4).
- When finished product examination does not need to be conducted (Sec. 12.5).

**3.2 Purchasers *may* specify the following:**

- When the dairy components for the RUSF are to be graded or inspected by the Dairy Grading Branch (DGB), Dairy Programs (DP), Agricultural Marketing Service (AMS), USDA (Sec. 11).
- Food defense system survey (FDSS) (Sec. 12.1 with 12.2.1) or (Sec. 12.1 with 12.2.2), or Food defense addendum to plant systems audit (PSA) (Sec. 12.2 with 12.2.1).
- Manufacturer's quality assurance (Sec. 12.2 with 12.2.1) or (Sec. 12.2 with 12.2.2).
- Packaging requirements other than specified (Sec. 8.2 and 13).

**4. MANUFACTURER'S NOTES. Manufacturer's products *shall meet* the requirements of the:**

- Processing guidelines (Sec. 5).
- Salient characteristics (Sec. 6).
- Analytical requirements*: as specified by the purchaser* (Sec. 7).
- Pouch requirement and examinations (Sec. 8).
- Manufacturer's product assurance (Sec.9).
- Regulatory requirements (Sec. 10).
- Quality assurance provisions for the dairy components: *as specified by the purchaser* (Sec. 11).
- Quality assurance provisions: *as specified by the purchaser* (Sec. 12).
- Packaging requirements other than specified (Sec. 13).

**5. PROCESSING GUIDELINES.**

**5.1 <u>Processing</u>.** The RUSF must be processed in compliance with International Organization for Standardization (ISO) Standard 22000, or other standards (Food and Drug Administration (FDA) Current Good Manufacturing Practices (21 Code of Federal Regulations (CFR) Part 110), Codex Alimentarius Code of hygienic practice for powdered formulae for infants and young children CAC/RCP 66 - 2008[2], Codex standard 073-1981, Codex standard for canned baby foods[3], Codex Alimentarius Recommended International Code of Practice. General Principles of

[2] http://www.codexalimentarius.org/input/download/standards/11026/CXP_066e.pdf
[3] http://www.codexalimentarius.org/standards/list-of-standards/en/?provide=standards&orderField=fullReference&sort=asc&num1=CODEX

Food Hygiene CAC/RCP 1-1969, Rev. 4-2003[4], Hazard Analysis of Critical Control Points (HACCP), that assures the quality of the product. The micronutrients shall be Food Chemicals Codex (FCC) purity or U.S. Pharmacopeia (USP) - National Formulary quality, as appropriate, and free from foreign materials. All additives shall not exceed levels allowable by the Codex Alimentarius.

**5.2 Food security.** The RUSF should be processed and transported in accordance with the FDA's *Guidance for Industry: Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance.*[5] This guidance identifies the kinds of preventive measures food manufacturers, processors, or handlers may take to minimize the risk that food under their control will be subject to tampering or other malicious, criminal, or terrorist actions. The implementation of enhanced food security preventive measures provides for the security of a plant's production processes and includes the storage and transportation of pre-production raw materials, other ingredients, and postproduction finished product.

**5.3 Age requirement.** Unless otherwise specified in the Commodity Requirements Document (CRD), solicitation, contract, or purchase order the RUSF shall not be more than 90 days old on date of shipment from plant and shall have a documented shelf life of at least 24 months at 30°C (86°F) and 12 months at 40°C (104°F) from actual or accelerated shelf life studies.

## 6. SALIENT CHARACTERISTICS.

**6.1 Ingredients.** The RUSF ingredients shall be suitable for infants from six months of age and young children through 59 months, provided that the analytical and salient characteristics cited herein are met. No animal products other than milk or milk derived products shall be used. RUSF shall not contain artificial antioxidants or artificial flavorings. Natural antioxidants permitted by Codex Alimentarius are: Mixed tocopherols concentrate, alpha-tocopherol and L-ascorbyl palmitate. Manufacturer shall state all ingredients in the offer and on the label in descending order by weight in accordance with 21 CFR § 101.4 unless exempted by 21 CFR § 101.100. See also Codex Standard 72 Standard for Infant Formula and Formulas for Special Medical Purposes intended for infants.[4] The RUSF may be made with a combination of dairy and non-dairy products as long as final product has a protein digestibility-corrected amino acid score (PDCAAS) score of 0.7 or better and all macronutrient requirements are fulfilled.

**6.1.1 Formulation.** When formulating the RUSF, care should be taken to avoid or mitigate anti-nutritional factors or inhibitors of nutrient absorption. The emulsion of the product shall be stable at temperatures ranging from -15 to 50°C (5 to 122°F). There shall be no more than slight oil separation throughout the shelf life of the product. The producer must guarantee that the product has a minimum shelf life of 2-years at 30°C (86°F) and must provide the results of any real-time and accelerated storage studies at 30°C (86°F) and 40°C (104°F), which corroborate their shelf life claim or agree to carry out such studies on retained product samples at both

[4] http://www.codexalimentarius.org/input/download/standards/23/CXP_001e.pdf
[5] http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/FoodDefense/ucm083075.htm

temperatures for micronutrient stability, oxidation, oil separation and organoleptic tests, making the results available upon request. All major formulation components (fats, cereals, protein sources, sweeteners) must come from verifiable domestic sources.

**6.1.2 Energy content.** The energy content of the RUSF shall be 520-550 kcal per 100 g. Proteins shall account for 13 to 20 g per 100 g of product. Lipids shall account for 15-32 g per 100 g of product. The ratio of omega 6 to omega 3 should be below 15 and preferably between 5 and 9.[6] The only added oils allowed will be canola oil or soybean oil. Partially hydrogenated (Trans) fatty acids shall not be used in RUSF.

**6.1.3 Protein content.** At least 50 percent of the protein content should be derived from protein sources with a PDCAAS of 0.7 or better. These may be milk products, such as, but not limited to: FDA's Direct Food Substances Affirmed as GRAS for Whey Protein Concentrate (21 CFR § 184.1979(c)); U.S. Standards for Dry Whey, and USDA Specifications for Dry Whey Protein Concentrate; dry whole milk per Codex Standard for Milk Powders and Cream Powder (Codex Stan 207), FDA's Standard of Identity for Dry Whole Milk (21 CFR § 131.147), and the U.S. Standards for Dry Whole Milk; whole fat milk per FDA's Standard of Identity for Milk (21 CFR § 131.110); nonfat dry milk per Codex Standard for Milk Powders and Cream Powder (Codex Stan 207), FDA's Standard of Identity for Nonfat Dry Milk (21 CFR § 131.125) and FDA's Standards of Identity for Nonfat Dry Milk fortified with vitamins A and D (21 CFR § 131.127), soy or other similar sources. Dairy ingredient manufacturers must certify that the dairy ingredients provided are melamine free and the manufacturer shall provide a Certificate of Analysis (CoA) to the purchaser. Pulse and legume sources of protein must be processed in a way that mitigates any anti-nutrient properties.

**6.1.4. Cereal ingredients.** If there are milled cereals used they should be processed in such a way as to reduce the fiber content, when necessary, and to decrease or, if possible, to eliminate anti-nutrients such as phytates, tannins or other phenolic materials, lectins, trypsin, and chymotrypsin inhibitors which can lower the protein quality and digestibility, amino acid bioavailability and mineral absorption. The use of appropriate enzymes may be considered to decrease fiber and anti-nutrients, if needed. The CoA must be provided to show the actual level of any mycotoxin(s) for which the FDA has established action levels, advisory levels, or guidance levels for the grain ingredient(s).[7] The end item analytical requirement for the finished product is no more than 5 parts per billion (ppb) total aflatoxin.

**6.1.5 Legume, pulse, oil-seed or tree nut ingredients.** If the manufacturer uses legumes, oil-seeds and/or pulses they must be appropriately processed to reduce, as much as possible, the anti-nutritional factors normally present, such as phytates, lectins (haemagglutenins), trypsin and chymotrypsin inhibitors in accordance with Codex Alimentarius Guidelines for the use of

[6] K. Michaelsen et al 2009 "*Choice of foods and ingredients for moderately malnourished children 6 months to 5 years of age*" in Food & Nutrition Bulletin, Volume 30, Supplement 3, September 2009, pages 343-404(62).
[7] See FDA guidance on mycotoxins. http://www.ngfa.org/files/misc/Guidance_for_Toxins.pdf.

formulated supplements for complementary food and its updates.[8] The CoA must be provided to show the actual level of any mycotoxin(s) for which the FDA has established action levels, advisory levels, or guidance levels for the legume, pulse, oil-seed or tree nut ingredient(s). The end item analytical requirement for the finished product is no more than 5 ppb total aflatoxin.

**6.1.6 Dairy ingredients.** When dairy ingredients are used, they shall meet the U.S. Standard for Extra Grade as defined in the appropriate U.S. Standards for Grade and shall be no more than 9 months old. Dairy ingredient manufacturers must certify that the dairy ingredients provided are melamine free and a CoA shall be provided to the purchaser.

**6.1.7 Sweeteners.** The RUSF may contain natural sweeteners, except honey. High fructose corn syrup shall not be used. Honey is not permitted due to potential toxicity from *Clostridium botulinum*.

**6.2 Fortification.** The RUSF shall be fortified with a vitamin and mineral premix that will ensure the finished product meets the nutritional requirements in Table I. The supplier should estimate the intrinsic nutrient content of the end product as well as the specification of the premix that is being added to reach the target levels after 24 months at 30°C (86°F). The vitamins and minerals used in the premix shall be USP-FCC compliant, unless otherwise specified and if necessary vitamins that are sensitive to degradation (such as vitamin A) shall be encapsulated to help reach the required product shelf life. This technology can also assist in reducing objectionable odors and flavors of the vitamins and minerals. Unless otherwise required in the CRD, solicitation, contract, or purchase order, the manufacturer will provide a Certificate of Conformance (COC) stating that the vitamin and mineral premix meets the stated levels and what variation may be present in the premix. The permitted variation in premix content is from the required minimum to +15 percent for added vitamins and +10 percent for minerals unless the range is specified in the analysis table. When adding the premix the manufacturer should take the inherent properties of the foods into account in order to reach a total content in the final product as specified in Table I.

**6.3 Final product.** The final product should have a PDCAAS score of 0.7 or better and the micronutrient profile should be consistent with Table 1.

[8] Guidelines on formulated supplementary foods for older infants and young children CAC/GL 08-1991. http://www.codexalimentarius.org/input/download/report/714/al32_13e.pdf.

**TABLE I. Nutrient requirements per 100 grams**[9, 10]

| Micronutrient | Total content/100 g | Unit | Preferred Chemical Form |
|---|---|---|---|
| Vitamin A | 1200.0 | µg RE | Dry vitamin A palmitate or acetate |
| Vitamin $B_1$ | 1.0 | mg | Thiamin mononitrate or hydrochloride |
| Vitamin $B_2$ | 2.5 | mg | Riboflavin |
| Niacin | 15.0 | mg | Niacinamide |
| Vitamin $B_6$ | 1.5 | mg | Pyridoxine HCl |
| Vitamin $B_{12}$ | 3.0 | µg | B12 (cobalamine) (0.1 percent SD or 1 percent spray dried) |
| Folate (DFE) | 230.0 | µg | Folic acid |
| Pantothenic Acid | 3.0 | mg | Calcium d-pantothenate, USP |
| Biotin | 12.0 | µg | Biotin 1 percent (FCC) |
| Vitamin C | 100.0 | mg | Ascorbic acid fine powder or sodium ascorbate |
| Vitamin D | 12.0 | µg | Dry vitamin D3 (100 percent CWS) - spray dried |
| Vitamin E | 16.5 | mg TE | Vitamin E dl-alpha tocopherols acetate (50 percent CWS) |
| Vitamin $K_1$ | 30.0 | µg | Dry vitamin K 5 percent |
| Calcium | 600.0 | mg | Tricalcium phosphate, FCC |
| Copper | 1.55 | mg | Copper sulphate |
| Iodine | 150.0 | µg | Potassium iodide |
| Iron | 10.0 | mg | 2.5 mg sodium iron EDTA, remainder ferrous fumarate or sulfate |
| Manganese | 0.68 | mg | Manganese sulphate |
| Magnesium | 150.0 | mg | Magnesium citrate, sulphate |
| Phosphorus | 457.0 | mg | Tricalcium phosphate[11] FCC |
| Potassium | 770.0 | mg | Potassium chloride |
| Selenium | 35.0 | µg | Sodium selenite or selenate |
| Sodium | <250.0 | mg | Chloride |
| Zinc | 15.0 | mg | Zinc sulphate |

[9] Adapted from WHO. Technical note: supplementary foods for the management of moderate acute malnutrition in infants and children 6–59 months of age. Geneva, World Health Organization, July, 2012.
[10] This is the final amount required and should be adjusted to include the intrinsic properties of the foods in the spread.
[11] Total phosphorus should be calculated taking just 30% of phosphorus from plant sources.

**TABLE I. Nutrient requirements per 100 grams (continued)**[9, 10]

| Micronutrient | Total content/100 g | Unit | Preferred Chemical Form |
|---|---|---|---|
| | | | |
| **Fatty acids (energy percent)** | Ratio of Omega 6:Omega 3 5:9[12] | | |
| n-6 fatty acid | >4.5, <10 | | |
| n-3 fatty acid | >0.5, <3 | | |
| Transfat (percent of total fat) | <3 | | |
| **Nutrient ratios (weight ratios)** | | | |
| Ca/P | >1.0, <1.5 | | |
| Zn/Cu | >5, <20 | | |
| Zn/Fe | >0.8, <3.5 | | |
| Vitamin C/Fe | >3, <16 | | |

**6.4 Finished product.**

**6.4.1 Appearance and texture.** The RUSF paste shall have a smooth homogeneous finish and shall be free of lumps; minimal oil separation correctible by mild massaging of the pouch and processed in a way to keep it free of a gritty, grainy, and sandy texture beyond normal ingredient attributes. The granulation should not exceed 20 microns. The emulsifying agents used for minimizing the phase separation shall be in accordance with the standards requirements for infant foods.

**6.4.2 Flavor and odor.** Only natural flavors are allowed. Any RUSF shall have a clean, pleasant odor (appropriate for the type of cereal, legume, oil seed, tree nut, dairy or combination of products used) and shall not possess distinct flavor notes attributable to the protein sources or the vitamins and minerals. The RUSF shall be free from foreign odors and flavors such as, but not limited to, burnt, scorched, rancid, moldy, sour, or stale.

**6.4.3 Color.** The RUSF shall be a color appropriate to the ingredients and not have a dull, grey tinge, or other abnormal cast. The RUSF shall show no evidence of excessive heating (materially darkened or scorched).

**6.5 Foreign material.** The RUSF shall be clean, sound, wholesome, and free from evidence of rodent or insect infestation.

[12] It is recommended that diets for moderately malnourished children contain at least 4.5 energy percent of n-6 PUFA and 0.5 energy percent of n-3 PUFA. The n-6:n-3 ratio in the diet should be below 15 and preferably between 5 and 9 (see footnote 6 on page 4).

**6.6 Product standard.** Unless otherwise specified in the CRD, solicitation, contract, or purchase order, a sample of RUSF shall be subjected to product demonstration model (PDM) inspection as applicable, in accordance with the requirements of this CID. The approved sample shall serve as the product standard when evaluating each production lot.[13] Any failure to conform to the finished product requirements or any appearance or palatability failure shall be cause for review to determine acceptance or rejection of the lot. Should the manufacturer at any time plan to, or actually produce the product using different raw material or process methodologies from the approved product standard, which result in a product non comparable to the product standard, the manufacturer shall arrange for a new or replacement PDM approval. In any event, all product produced must meet all requirements of this CID including product standard comparability.

## 7. ANALYTICAL REQUIREMENTS.

**7.1 Proximate and microbiological testing requirements.** Unless otherwise specified in the CRD, solicitation, contract, or purchase order the proximate and microbiological requirements for the RUSF shall be as follows:

| Test | Tolerance |
|---|---|
| Water activity ($a_w$) | Less than 0.40 |
| Peroxide value | Less than 10 meq[14]/kg oil |
| Protein | 10.5 - 15.5 percent of energy content |
| Total fat | 25 - 55 percent of energy content |
| Saturated fat | 5.5 g/100 g maximum |
| Enterobacteriaecae | Less than 10 CFU[15]/g |
| Total plate count | Less than 10,000 CFU/g |
| Coliforms | Less than 10 CFU/g |
| *Clostridium* (sulfite reducing anaerobes) | Less than 10 CFU/g |
| *Escherichia coli* (*E. coli*) | Negative in 1 g |
| *Staphylococcus aureus* (*Staph aureus)* | Negative in 1 g |
| *Salmonella* | Negative in 25 g |
| *Listeria monocytogenes* (*L. monocytogenes*) | Negative in 25 g |
| Yeast | Less than 10 CFU/g |
| Mold | Less than 50 CFU/g |
| Total aflatoxin (G, B & M) | Less than 5 ppb |

[13] A lot is defined as no more than 110 MT or one day's production of the product. The purchaser may reduce the lot size by production line, shift, or batch of major ingredients if desirable.
[14] Milliequivalents
[15] Colony Forming Units

| Test | Tolerance |
|---|---|
| Vitamin A | 900 - 1,500 µg RE/100 g |
| Vitamin $B_1$ | 750 - 1,250 µg/100 g |
| Vitamin C | 75 - 125 mg/100 g |
| Iron | 9 - 11 mg/100 g |

**7.2 Product verification.** When USDA verification of the analytical requirements is specified in the CRD, solicitation, contract, or purchase order, analytical testing shall be performed on composite samples. For proximate tests the composite sample shall be 454 g (1 lb). The number of subsamples drawn to make the proximate composite shall be based on USDA procedures. For the aflatoxin test a single composite sample shall be produced from 60 randomly drawn pouches. For microbiological tests five homogenized composite samples shall be produced from a total of 60 randomly drawn pouches (12 per composite) per production lot. There shall be 30 samples taken for *Salmonella* testing and 10 samples taken for Enterobacteriaecae.

**7.3 Test portion size.** The test portions for microbiological tests shall be derived from each of the five composite samples specified in Sec. 7.2. The test portion size for testing total plate count, coliform, and yeast and mold shall be 25 g (0.88 oz); *Salmonella* shall be 25 g (0.88 oz); *Staph aureus*, *Clostridium* (sulfite reducing anaerobes), *E. coli*, and *L. monocytogenes* shall be 25 g (0.88 oz) each. The test portion size for Enterobacteriaecae shall be 10 g (0.35 oz).

**7.4 Analytical testing.** When specified in the CRD, solicitation, contract, or purchase order, the analysis shall be made in accordance with the following methods of the AOAC International Official Methods of Analysis (OMA), the Bacteriological Analytical Manual (BAM), or ISO methods.

| Test | Method |
|---|---|
| $a_w$ | 978.18 |
| Peroxide value | 965.33 |
| Protein | 988.05 or 992.15 |
| Total fat | 991.36, 2007.04, or 2008.06 |
| Saturated fat | 996.06 |
| Enterobacteriaecae | 2003.2 or ISO 21528-Sec. 2 |
| Total plate count | 966.23, 990.12, or BAM Ch 3[16] |
| Coliform | 991.14, 992.30, 966.24, 2000.15, or BAM Ch. 4[16] |
| *Clostridium* (sulfite reducing anaerobes) | BAM Ch 12[16] |
| *E. coli* | 991.14, 992.30, 966.24, 2000.15, or BAM Ch.4[16] |
| *Staph aureus* | 2003.08, 975.55, or 2001.05 |

[16] 8th Edition, FDA BAM or the FDA BAM Online.

| Test | Method |
|---|---|
| *Salmonella* | 2004.03, 2003.09, 2011.03, BAM Ch. 5[16], or ISO 6579 |
| *L. monocytogenes* | 2004.02 |
| Yeast | 997.02 or 995.21 |
| Mold | 997.02 or 995.21 |
| Aflatoxin | 990.33, 991.31, 998.03, or 999.07 |
| Vitamin A | 2001.13, 2011.11, or 2011.13 |
| Vitamin $B_1$ | 986.27 or 957.17 |
| Vitamin C | 967.21, 986.27, or 985.33 |
| Iron | 985.35, 984.27, or 999.10 |

**7.5 Test results.** The test results for moisture and protein shall be reported to the nearest 0.1 percent. The test results for $a_w$ shall be reported to the nearest 0.01. No individual sample shall have $a_w$ exceeding 0.40. The test results for standard plate count and yeast and mold shall be reported to the nearest 10 CFU per g. The test results for Enterobacteriaecae shall be reported to the nearest 10 CFU per g. The test results for Enterobacteriaecae shall be reported as Pass for <10 CFU/g.[17] The test results for Enterobacteriaecae shall be reported as Pass for <10 CFU/g.[18] The test results for coliform and *E. coli* shall be reported to the nearest 10 CFU per g. The test results for *Clostridium* (sulfite reducing anaerobes), *L. monocytogenes*, and *Staph aureus* shall be reported as negative or positive. The test results for *Salmonella* will be reported as Pass for 0 in 25 g (0.88 oz) or Fail for any other number. The test results for vitamin A, vitamin $B_1$ (thiamin), vitamin C, iron, total fat, and saturated fat shall be according to the test method. The test results for aflatoxin shall be reported to the nearest ppb. Any result not conforming to the analytical testing shall be cause for rejection of the lot.

## 8. PACKAGING REQUIREMENTS AND EXAMINATIONS.

**8.1 Pouch requirements.** Unless otherwise specified in the CRD, solicitation, contract, or purchase order, the RUSF shall be subjected to packaging requirements and examinations. In general: tests shall be done to check that the packaging can stand harsh conditions (temperature, moisture, transport, etc.) and that laminate foil can hold the fat-based products without deterioration over time (permeability to oxygen, moisture, UV degradation, etc.).

**8.1.1 Pouch material.** The pouch material shall be capable of being fabricated into pouches. The material used for the pouch shall be generally recognized as safe (GRAS) for use with food in accordance with 21 CFR Parts 170-199 or other standards and regulations. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible, provided that the material meets or exceeds the material requirements cited herein.

[17] If more than one sample has >10 CFU, the contacting officer will make the final acceptance or rejection decision.
[18] If more than one sample has >10 CFU, the contacting officer will make the final acceptance or rejection decision.

**8.1.2 Oxygen transmission rate.** The oxygen transmission rate ($O_2TR$) of the material shall not exceed 0.06 cc/$m^2$/24 hrs. The $O_2TR$ of the material shall be determined in accordance with ASTM D 3985, at 22°C (71.6°F) and 50 percent relative humidity (RH). Any $O_2TR$ exceeding the parameter shall be considered a test failure and shall be cause for retesting, test results verification, and review for acceptance or rejection of the lot. Compliance to the $O_2TR$ requirement may be verified by CoA from the packaging manufacturer.

**8.1.3 Water vapor transmission rate.** The water vapor transmission rate (WVTR) of the material shall not exceed 0.06 gm/100 in/24 hrs. The WVTR of the material shall be determined in accordance with ASTM F 1249, at 38°C (100.4°F) and 90 percent RH. Any WVTR exceeding the parameter shall be considered a test failure and shall be cause for re-testing, test results verification, and review for acceptance or rejection of the lot. Compliance to the WVTR requirement may be verified by CoA from the packaging manufacturer.

**8.1.4 Filled and Sealed Pouches.** Filled and sealed pouches shall be free of damage (such as, but not limited to, tears, cuts, holes, or if a multi-layer laminate is used, abrasions through one or more layers in the pouch material, or leakage through any seal). The pouch material shall not transfer any foreign flavor or odor to the product being packaged.

**8.1.4.1 Closure seal.** The closure seal width shall be a minimum 2.5 mm (0.10 in). The closure seal shall be free of impression or design on the seal surface that would conceal or impair visual detection of seal defects. The closure seal shall be free of wrinkles, occluded matter, or evidence of entrapped moisture or grease that reduces the closure seal width to less than 1.6 mm (1/16 in) at any location along its continuous path.

**8.1.4.2 Internal pressure.** The pouches shall be filled and hermetically sealed such that they shall withstand the applicable pressure for 30 seconds.

**8.2 Filled and sealed pouch examination.** The filled and sealed pouches shall be examined for the defects listed in Table II utilizing ANSI/ASQC Z1.4, Sampling Procedures and Tables for Inspection by Attributes, in effect on the date of the CRD, solicitation, contract, or purchase order. The lot size shall be expressed in pouches. The sample unit shall be one filled and sealed pouch. The inspection level shall be I and the acceptable quality level (AQL), expressed in terms of defects per hundred units shall be 1.5 for major defects and 4.0 for minor defects. A minimum of 200 samples shall be examined for critical defects. The finding of any critical defect shall be cause for rejection of the lot.

**TABLE II. Filled and sealed pouch defects**[19]

| Category | | | Defect |
|---|---|---|---|
| **Critical**[20] | **Major**[21] | **Minor**[22] | |
| 1 | | | Tear, hole, or open seal. |
| 2 | | | Swollen pouch. |
| 3 | | | Aberrations in pouch material or heat seals resulting from heat sealing, pouch fabrication, hot filling or heat processing that reduce the effective closure seal width to less than 1.6 mm (1/16 in).[23] |
| | 101 | | Delamination of one or more layers of the pouch material that extends into, or is present in, the body of the pouch (i.e., within the food contact area). |
| | | 201 | Delamination less than 3mm (0.118 in) in its greatest dimension, shall be scored as a minor defect |
| | 102 | | Seal widths not as specified. |
| | 103 | | Not heat sealed as specified. |
| | 104 | | Closure seal not located as specified. |
| | 105 | | Closure or top seal extends into or below tear notch location. |
| | 106 | | Not clean.[24] |
| | 107 | | Required labeling or marking missing, incorrect, illegible, or that smudges. |
| | 108 | | Presence of entrapped matter (for example, product residue) that reduces the effective closure seal to less than 1.6 mm (1/16 in) wide.[25] |

[19] Any evidence of insect or rodent infestation shall be cause for rejection of the lot.
[20] A critical defect is a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using the item.
[21] A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.
[22] A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.
[23] Aberrations in pouch material or heat seals include:
a. Major fold-over wrinkles or severe wrinkles, that extend into heat seal area and reduce effective seal width to less than 1.6 mm (1/16 in); or
b. Severe wrinkles in the body of the pouch along the inside edges of the heat seals. Pouches exhibiting one or more of these aberrations shall be tested in accordance with Sec. 8.4.
[24] Outer packaging shall be free from foreign matter, which is unwholesome, has the potential to cause pouch damage (for example, glass, metal fillings, etc.) or generally detracts from the clean appearance of the pouch. The following examples shall not be scored as defects for unclean:
a. Foreign matter which presents no health hazard or potential pouch damage and which can be readily removed by gently shaking the pouch or by gently brushing the pouch with a clean dry cloth.
b. Dried product, which affects less than 1/8 of the total surface area of one pouch face (localized and aggregate).
c. Water spots.
d. Very thin film of grease, oil, or product residue, which is discernible to touch, but is not readily discernible by visual examination.
[25] The effective closure seal is defined as any uncontaminated, fusion bonded, continuous path, minimum 1.6 mm (1/16 in) wide from side seal to side seal that produces a hermetically sealed pouch.

**TABLE II. Filled and sealed pouch defects (continued)**[18]

| Category | | | Defect |
|---|---|---|---|
| Critical[19] | Major[20] | Minor[21] | |
| | | 202 | Tear notch or serrations missing. |
| | | 203 | Tear notch or serrations not located as specified. |

**8.3 Pouch leakage examination.** All exterior surfaces and edges of the filled and sealed pouch shall be examined visually for product leakage while applying a manual kneading action which forces the product against the interior pouch surface in the area being observed. Any product leakage from the pouch shall be classified as a major defect. The lot size shall be expressed in pouches. The sample unit shall be one filled and sealed pouch. The inspection level shall be I. The finding of one or more major defects will be cause for rejection of the lot.

**8.4 Internal pressure test.** Internal pressure resistance shall be determined by pressurizing the pouches while they are restrained between two rigid plates. The plates shall be 12.7 $\pm$ 1.6 mm (1/2 $\pm$ 1/16 in) apart or 25.4 $\pm$ 1.6 mm (1 $\pm$ 1/16 in) apart. If a three-seal tester (one that pressurizes the pouch through an open end) is used, the closure seal shall be cut off for testing the side and bottom seals of the pouch; for testing of the closure seal, the bottom seal shall be cut off. The pouches shall be emptied prior to testing. If a four-seal tester (designed to pressurize filled pouches by use of a hypodermic needle through the pouch wall) is used, all four seals can be tested simultaneously. Pressure shall be applied gradually until 17 psig pressure is reached. The 17 psig pressure shall be held constant for 30 seconds and then released. The pouches shall then be examined for separation or yield of the seals. Any rupture of the pouch or evidence of seal separation greater than 1.6 mm (1/16 in) in the pouch manufacturer's seal shall be considered a test failure. Any seal separation that reduces the effective closure seal width to less than 1.6 mm (1/16 in) (see Table II) shall be considered a test failure and shall be cause for re-testing, test results verification, and review for acceptance or rejection of the lot. Other industry-acceptable testing methods to determine internal pressure resistance shall be described and made available for review in accordance with guidance parameters noted in this section.

**8.5 Net weight examination.** Product will be packaged in 100 g per pouch as required by the purchaser in the CRD, solicitation, contract, or purchase order, unless otherwise specified. The net weight of the filled and sealed pouches shall be determined by weighing each sample unit on a suitable scale tared with a representative empty pouch. For 100 g (3.527 oz) pouches, any individual net weight of less than 100 g (3.527 oz) shall be classified as a minor defect. The lot size shall be expressed in number of pouches to a defined lot size in footnote 13, page 8. The sample unit shall be one filled and sealed pouch. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 2.5. The results shall be reported to the nearest 0.1 g (0.003 oz). In addition, the lot shall be rejected if the sample average net weight of 100 g (3.527 oz) pouches is less than 100 g (3.527 oz).

**9. MANUFACTURER'S PRODUCT ASSURANCE.** The manufacturer shall certify that the RUSF provided meets the requirements of this CID. The purchaser shall require proof of conformance.

**10. REGULATORY REQUIREMENTS.** The delivered RUSF shall comply with all applicable Federal, State, and local mandatory requirements and regulations relating to the preparation, packaging, labeling, storage, distribution, and sale of RUSF within the commercial marketplace. Delivered RUSF shall comply with all applicable provisions of the Federal Food, Drug, and Cosmetic Act, the Fair Packaging and Labeling Act, and regulations promulgated thereunder. The delivered RUSF shall comply with the allergen labeling requirements of the Food Allergen Labeling and Consumer Protection Act.

**11. QUALITY ASSURANCE PROVISIONS FOR THE DAIRY COMPONENTS.** Purchaser shall specify in the CRD, solicitation, contract, or purchase order when the following provisions shall be met.

**11.1 Manufacturer's quality assurance.** When required in the CRD, solicitation, contract, or purchaser order, the dairy component manufacturer shall be required to have their facilities inspected by the DGB, DP, AMS, USDA, and be eligible for listing in Section I of the AMS publication *Dairy Plants Surveyed and Approved for USDA Grading Service*. (An AMS, DP plant survey verifies that, at the time of the survey, the manufacturer produces products in a clean, sanitary environment and satisfactorily meets the requirements contained in *7 CFR, Part 58 Subpart B - General Specification for Dairy Plants Approved for USDA Inspection and Grading Service and 21 CFR Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food*.)

**11.2 USDA, DP certification.** When required in the CRD, solicitation, contract, or purchase order, the DGB, DP, AMS, USDA, shall certify that the dairy components used for the manufacturing of RUSF meets or exceeds the requirements of the: FDA's Direct Food Substances Affirmed as GRAS for Whey Protein Concentrate (21 CFR § 184.1979(c)); U.S. Standards for Dry Whey, and USDA Specifications for Dry Whey Protein Concentrate; dry whole milk per Codex Standard for Milk Powders and Cream Powder (Codex Stan 207), FDA's Standard of Identity for Dry Whole Milk (21 CFR § 131.147), and the U.S. Standards for Dry Whole Milk; whole fat milk per FDA's Standard of Identity for Milk (21 CFR § 131.110); nonfat dry milk per Codex Standard for Milk Powders and Cream Powder (Codex Stan 207), FDA's Standard of Identity for Nonfat Dry Milk (21 CFR § 131.125) and FDA's Standards of Identity for Nonfat Dry Milk fortified with vitamins A and D (21 CFR § 131.127). The DGB inspectors shall certify the dairy components in accordance with DGB procedures which include random sampling of the dairy components; evaluating the samples for conformance with the appropriate U.S. Standards for Grade, USDA Specification, and/or Codex Standard; and documenting the requirements on official DGB certificates.

**12. QUALITY ASSURANCE PROVISIONS.** *Purchaser shall specify 12.3, 12.4, or 12.5; purchaser may specify 12.1 with 12.1.1, 12.1 with 12.2.1, 12.1 with 12.2.2, 12.2 with 12.2.1, or 12.2 with 12.2.2.*

**12.1 Food defense.** Food defense requirements include a documented and operational food defense plan that provides for the security of a plant's production processes and includes the storage and transportation of pre-production raw materials and other ingredients and postproduction finished product. The plan shall address the following areas: (1) food security plan management; (2) outside and inside security of the production and storage facilities; (3) slaughter, when applicable, and processing, including all raw material sources; (4) shipping and receiving; (5) storage; (6) water and ice supply; (7) mail handling; (8) personnel security; and (9) transportation, shipping, and receiving.

**12.1.1 FDSS.** When required in the CRD, solicitation, contract, or purchase order, a FDSS shall be conducted by USDA, AMS, Specialty Crops Inspection Division (SCI). The FDSS verifies that operators of food establishments have implemented measures to minimize the risk of tampering or other criminal actions against the food under their control. *(An AMS, FDSS verifies the participating company's adherence to the FDA's "Guidance for Industry - Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance.") For further information, see Sec. 15.1.1 and 15.3.2.*

**12.1.2 Food defense addendum to Plant Systems Audit (PSA).** When required in the CRD, solicitation, contract, or purchase order, a Food defense addendum shall be conducted by USDA, AMS, SCI auditors. This verifies that operators of food establishments have implemented measures to minimize the risk of tampering or other criminal actions against the food under their control. (A Food Defense Addendum to the PSA verifies the participating company's *adherence to the FDA's "Guidance for Industry - Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance.") For further information, see Sec. 15.1.1 and 15.3.2.*

**12.2 Manufacturer's quality assurance.** When required in the CRD, solicitation, contract, or purchase order, the product manufacturer shall be required to provide evidence, by certificate, that the manufacturing plant has undertaken one of the following quality assurance measures within 12 months prior to providing a bid, or no later than 10 business days from the date of awarding of the contract. Failure to provide this documentation within the proper time frame may result in the contract being terminated for cause.

**12.2.1 PSA.** A PSA conducted by USDA, AMS, SCI, or other audit performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS PSA verifies the manufacturer's capability to produce products in a clean sanitary environment in accordance with 21 CFR Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food, and verifies that the manufacturer has in place an internal quality assurance program.)* (Perform with Food defense addendum when required.)

**12.2.2 Plant survey.** A plant survey conducted by USDA, AMS, SCI, or other survey performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS plant survey audit verifies that, at the time of the survey, the manufacturer produces products in a clean sanitary environment in accordance with 21 CFR Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food.)*

**12.3 Manufacturer's certification.** When required in the CRD, solicitation, contract, or purchase order, the manufacturer shall certify that the finished RUSF distributed meets or exceeds the requirements of this CID.

**12.4 USDA certification.** When required in the CRD, solicitation, contract, or purchase order that product quality, acceptability, or both be determined, the SCI, Fruit and Vegetable Program (FV), AMS, USDA, shall be the certifying agency. SCI inspectors shall certify the quality and acceptability of the RUSF in accordance with SCI procedures which include: selecting random samples of the packaged RUSF, evaluating the samples for conformance with the salient characteristics of this CID and other contractual requirements, and documenting the findings on official SCI score sheets and/or certificates. In addition, when required in the CRD solicitation, contract, or purchase order, SCI inspectors will examine the RUSF for conformance to the U.S. Standards for Condition of Food Containers (7 CFR Part 42) in effect on the date of the solicitation.

**12.5 End-Item inspection.** The finished product shall be examined for compliance with the product requirements specified in Sec. 6.6, utilizing the double sampling plans indicated in ANSI/ASQC Z1.4 in effect on the date of the solicitation. The lot size shall be expressed in pouches.[26] The sample unit shall be the contents of one pouch for the RUSF. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 1.5 for major defects and 4.0 for minor defects. Defects and defect classifications are listed in Table III.

The pouches of RUSF shall be kneaded prior to conducting any portion of the product examination.

[26] See footnote 13 on page 8.

**TABLE III. Product defects**[27, 28]

| Category | | Defect |
|---|---|---|
| **Major** | **Minor** | |
| | | **Appearance and Texture** |
| 102 | | Paste, not a smooth, homogeneous finish and not free of lumps. |
| 103 | | Paste, shows separation of oil. |
| 104 | | Paste, not free of gritty, grainy, and sandy texture. |
| 105 | | Paste, shows evidence of excessive heating (material darkened or scorched). |
| | | **Flavor and Odor** |
| 106 | | Paste does not have a pleasing sweet, clean flavor and odor associated with its major ingredients. |
| | | **Color** |
| | 201 | Paste not light or appropriate color or has a dull grey or other abnormal cast. |

**12.6 Product standard inspection.** The RUSF PDM shall be inspected in accordance with the provisions of this CID and evaluated for overall appearance and palatability. Any failure to conform to the CID requirements or any appearance or palatability failure shall be cause for rejection of the lot. The approved PDM shall be used as the product standard for periodic review evaluation and inspection activities. All food components that are inspected by USDA shall be subject to periodic review sampling and evaluation. The USDA shall select sample units during production of the contract and submit them to USDA Headquarters and the purchasers' designee, as specified in the CRD solicitation, contract, or purchase order. One lot shall be randomly selected during each calendar month of production. Twelve (12) sample units of RUSF shall be randomly selected from that one production lot. The 12 sample units shall be shipped to USDA Headquarters and the purchasers' designee within five working days from the end of the production month and upon completion of all USDA inspection requirements. The sample units shall be evaluated for the salient characteristics including appearance, odor, flavor, texture, and overall quality.

[27] Presence of any foreign materials such as, but not limited to dirt, inspect parts, hair, wood, glass, metal, or any foreign odors or flavors such as, but not limited to, burnt, scorched, rancid, malted, sour, or stale shall be cause for rejection of the lot.
[28] Finished product not equal to or better than the approved product standard in palatability and overall appearance shall be cause for rejection of the lot.

**13. PACKAGING.** The packing, labeling, and case marking shall be specified in the CRD, solicitation, contract, or purchase order.

**14. USDA INSPECTION NOTES. When Sections 12.4 and 12.6 are specified in the CRD solicitation, contract, or purchase order, USDA certification shall include evaluation of the quality and condition of samples of RUSF and compliance with requirements in the following areas:**

- Processing guidelines (Sec. 5).
- Salient characteristics (Sec. 6).
- Product standard evaluation of the PDM (Sec. 6.6 and 12.6).
- Analytical requirements *when specified in the CRD solicitation, contract, or purchase order* (Sec. 7.1). When USDA analytical testing is specified, SCI inspection personnel shall select samples and submit them to the USDA, Science and Technology Programs (S&TP) laboratory for analysis.
- Packaging requirements (Sec. 8 and 13 or as specified in the *CRD, solicitation, contract, or purchase order*).

**15. REFERENCE NOTES.**

**15.1 USDA certification contacts.**

**15.1.1 USDA certification, FDSS, plant survey, and PSA contact.** For a USDA certification, FDSS, plant survey, and PSA, contact the **Chief, Inspection Branch, SCI, FV, AMS, USDA, STOP 0240, 1400 Independence Avenue, SW, Washington, DC 20250-0240 telephone (202) 720-2482, Fax (202) 720-0393, or via E-mail: nathaniel.taylor@ams.usda.gov.**

**15.1.2 DGB certification contact.** For dairy product certification, contact the **Branch Chief, DGB, DP, AMS, USDA, STOP 0230, 1400 Independence Avenue, SW, Washington, DC 20250-0230, telephone (202) 720-3171, Fax (202) 720-2643, or via E-mail: Ken.Vorgert@ams.usda.gov.**

**15.2 Analytical testing and technical information contact.** For USDA technical information on analytical testing, contact **a member of the Technical Service Staff, S&TP, AMS, USDA, STOP 0272, 1400 Independence Avenue, SW, Washington, DC 20250-0272, telephone (202) 720-5231 or via E-mail: Alan.Post@ams.usda.gov or Ruihong.Guo@ams.usda.gov.**

**15.3 Sources of documents.**

**15.3.1 Sources of information for nongovernmental documents are as follows:**

Copies of the AOAC International OMA may be obtained from: **AOAC International, 481 North Frederick Avenue, Suite 500, Gaithersburg, MD 20877-2417, telephone (301) 924-**

**7077. Internet address: http://www.aoac.org for non-members and http://www.eoma.aoac.org for members and AOAC OMA subscribers.**

Copies of the Food Chemicals Codex and U.S. Pharmacopeia may be purchased from: **United States Pharmacopeia, 12601 Twinbrook Parkway, Rockville, MD 20852-1790, telephone (800) 227-8772 or (301) 881-0666, Fax (301) 816-8148. Internet address: www.usp.org.**

Copies of the: Recommended International Code of Practice, General Principles of Food Hygiene CAC/RCP 1-1969, Revision 4-2003; Report of the 28th session of the Codex committee on nutrition and foods for special dietary uses, Chiang Mai, Thailand, 30 October - 3 November 2006 (Alinorm 07/30/26); Code of Hygienic Practice for Powdered Formulae for Infants and Young Children, CAC/RCP 66 - 2008; Advisory List of Mineral Salts and Vitamin Compounds for Use in Foods for Infants and Children of the Codex Alimentarius Standard (CAC/GL 10 - 1979); all standards linked to specific products for ingredients/raw materials and final products (ex.: aflatoxin levels in peanuts, peroxide levels in vegetable oils, radioactive elements in milks, etc.); and the concept of "fit for human consumption" must comply with Codex Alimentarius raw material specification sheets for STAN 207 - 1999 for milk, STAN 212 - 1999 for sugar, STAN 200 for peanuts, and STAN 210 for vegetable oil may be downloaded free from: **Codex Alimentarius, via the Internet. Internet address: http://www.codexalimentarius.net/web/index_en.jsp.**

Copies of latest edition of ANSI/ASQC Z1.4 may be purchased from: **ASQ, P.O. Box 3005, Milwaukee, WI 53201-3005, telephone (800) 248-1946, Fax (414) 272-1734. Internet address: http://asq.org/quality-press/display-item/index.html?item=T004**

Copies of ASTM D 3985 Standard Test Method for Oxygen Gas Transmission Rate Through Plastic Film and Sheeting Using a Coulometric Sensor, **http://www.astm.org/Standards/F2622.htm** and ASTM F1249 - 06(2011) Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor, **http://www.astm.org/Standards/F1249.htm** are available from: **ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, telephone (610) 832-9585. Internet address: http://www.astm.org.**

Copies of ISO Standard 22000 are available from: **ISO Central Secretariat, 1 ch. de la Voie-Cruse, Case Postale 56, CH-1211 Geneva 20, Switzerland, telephone 41-22-749-01-11, Fax 41-22-749-09-47, e-mail: http://www.iso.org/iso/home/store.htm. Internet address: www.iso.org.**

Copies of the United Nations Children's Fund (UNICEF) specifications for Ready-To-Use Supplemental Foods (RUSF) are available from: **UNICEF Supply Catalogue. Internet address: https://supply.unicef.org/unicef_b2c/app/displayApp/(layout=7.0-12_1_66_67_115&carea=%24ROOT)/.do?rf=y. From the main site, click on "Nutrition" and then on "Supplementary Foods". The specifications for RUSFs are on page 2.**

**A-A-20362**

Copies of the *WHO, UNICEF, WFP, and UNHCR Consultation on the Dietary Management of Moderate Malnutrition in Under-5 Children,* Food and Nutrition Bulletin, Volume 30, Number 3, September 2009 (Supplement) are available from: **World Health Organization, Avenue Appla 20, 1211 Geneva 27, Switzerland, telephone + 41 22 791 21 11, Fax + 41 22 791 31 11, e-mail: bookorders@who.int. Internet address: http://www.who.int/nutrition/publications/moderate_malnutrition/mm_report/en/. WHO technical note: Supplementary foods for the management of moderate acute malnutrition in infants and children 6–59 months of age. Geneva, World Health Organization, July, 2012. http://apps.who.int/iris/bitstream/10665/75836/1/9789241504423_eng.pdf.**

**15.3.2 Sources of information for governmental documents are as follows:**

Applicable provisions of the U.S. Standards for Condition of Food Containers are contained in 7 CFR Part 42, the Fair Packaging and Labeling Act are contained in 16 CFR, Parts 500 to 503 and the Federal Food, Drug, and Cosmetic Act are contained in 21 CFR Parts 1 to 199. These documents may be purchased from: **Superintendent of Documents, New Orders, P.O. Box 979050, St. Louis, MO 63197-9000. Credit card (Visa, MasterCard, Discover/NOVUS, and American Express) purchases may be made by calling the Superintendent of Documents on (866) 512-1800, (202) 512-1800. These documents may also be obtained free of charge on the Internet at: http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.**

Copies of Guidance for Industry - Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance are available online from: **FDA, Center for Food Safety and Applied Nutrition (CFSAN) on the Internet at: http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/FoodDefense/ucm083075.htm**

Copies of the Bacteriological Analytical Manual (BAM) are available from: **FDA, CFSAN, U.S. Food and Drug Administration are available on the Internet at: http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/BacteriologicalAnalyticalManualBAM/default.htm.**

Copies of the Analytical Methods for Melamine and Triazine Analogs are available from: **FDA, CFSAN on the Internet at: http://www.fda.gov/AnimalVeterinary/ScienceResearch/ToolsResources/ucm135002.htm**

Copies of the U.S. Standards of Dry Whey are available from: **Branch Chief, Standardization Branch, DP, AMS, USDA, Room 2746-South Building, Stop Code 0230, 1400 Independence Avenue, S.W., Washington, D.C. 20250-0230, telephone: (202) 720-7473. FAX (202) 720-2643 or on Internet at: http://www.ams.usda.gov/dairystandards.**

Copies of Dairy Plants Surveyed and Approved for USDA Grading Service are available from: **Branch Chief, DGB, DP, AMS, USDA, STOP 0230, 1400 Independence Avenue, SW, Washington, DC 20250-0230, telephone (202) 720-3171 or on the Internet at: www.ams.usda.gov/dairygrading.**

Copies of this CID, the U.S. Standards for Condition of Food Containers (7 CFR Part 42), and beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this CID are available from and/or provided to: **Chief, Standardization Branch, SCI, FV, AMS, USDA, STOP 0240, 1400 Independence Avenue, SW, Washington, DC 20250-0240, telephone (202) 720-5021, Fax (202) 690-1527, or via E-mail: CIDS@ams.usda,gov or on the Internet at: http://www.ams.usda.gov/CommercialItemDescription.**

## CIVIL AGENCY COORDINATING ACTIVITIES:

HHS - FDA
USAID - FFP
USDA - FV

## PREPARING ACTIVITY:

USDA - FV