



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY VETERINARY COMMAND
2050 WORTH ROAD, SUITE 5
FORT SAM HOUSTON, TEXAS 78234-6005

REPLY TO
ATTENTION OF

MCVS-FA

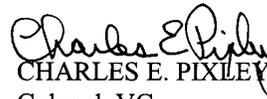
3 December 2002

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Minutes of the Food Risk Evaluation Committee (FREC), 28-29 August 2002

1. We enclose the minutes of the Food Risk Evaluation Committee (FREC) meeting of 28-29 August 2002 for your information and records.
2. Our point of contact is Mr. Robert Kilburn, DOD Approved Sources Division, DSN 471-6547.

Encl
as


CHARLES E. PIXLEY

Colonel, VC

Chairman, Food Risk Evaluation Committee

DISTRIBUTION:

COL Cates, 100th Medical Detachment VS-HQ, CMR 442, APO AE 09042-1100
COL Hicks (DOC), HQ Defense Commissary Agency, 11200 38th Street and E Avenue,
Fort Lee, VA 23801-6300
COL Hoskins (MCCS HV), U.S. Army Medical Department Center and School, 2250 Stanley
Road, Suite 270, Fort Sam Houston, TX 78234-6145
COL Kelsey (MCVS), U.S. Army Veterinary Command, 2050 Worth Road, Suite 5,
Fort Sam Houston, TX 78234-6005
COL Meyer (MCVS-SCVL), VETCOM Food Analysis & Diagnostic Laboratory, 2472 Schofield
Road, Building 2632, Fort Sam Houston, TX 78234-6232
COL Severin, HQDA DODVSA-ZA, 5109 Leesburg Pike, Suite 621, Falls Church, VA
22041-3258
COL Taylor, 106th Medical Detachment VS, Unit 15252, APO AP 96205-0025
Col. Van Hook, HQ AFOMA SGOP, 110 Luke Avenue, Room 405 ,Bolling AFB, DC
20332-7050
COL Wolken (MMLV), Defense Logistics Agency, 8725 John J. Kingman Road, Suite 4240,
Fort Belvoir, VA 22060-6221
LTC Mason (DSCP-HROS), Defense Supply Center Philadelphia, 700 Robbins Avenue,
Building 6, Philadelphia, PA 19111-5092
LTC McLean (Code 51V), Naval Supply Systems Command, 5450 Carlisle Pike, PO Box 2050,
Mechanicsburg, PA 17055-0791

MCVS-FA

SUBJECT: Minutes of the Food Risk Evaluation Committee (FREC), 28-29 August 2002

DISTRIBUTION (cont.):

LTC Schuckenbrock (MR-Q), Army and Air Force Exchange Service, PO Box 660202, Dallas,
TX 75266-0202

MAJ Williamson, Veterinary Svcs Det Bahrain, PSC 451 Box Vet Svcs, FPO AE 09834-2800

CW5 Jordan (MCVS-F), U.S. Army Veterinary Command, 2050 Worth Road, Suite 5,
Fort Sam Houston, TX 78234-6005

Mr. McNeil (MCHB-DF-F), U.S. Army Center for Health Promotion and Preventive Medicine,
5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5442

Mr. Odette, Navy Environmental Health Center, 620 John Paul Jones Circle Suite 1100,
Portsmouth, VA 23708-2103

Mr. Kilburn, U.S. Army Veterinary Command, ATTN: MCVS-FA, 2050 Worth Road, Suite 5,
Fort Sam Houston, TX 78234-6005



REPLY TO
ATTENTION OF

DODVSA

DEPARTMENT OF DEFENSE
VETERINARY SERVICE ACTIVITY
5109 LEESBURG PIKE
FALLS CHURCH VA 22041-3258



19 Nov 2002

MEMORANDUM FOR Colonel Charles E. Pixley, Chairman, Food Risk Evaluation Committee,
ATTN: MCVS-FA, 2050 Worth Road, Fort Sam Houston, TX 78234-6005

SUBJECT: Minutes of the Food Risk Evaluation Committee Meeting 28 August 2002

1. The minutes from the 28 August 2002 FREC have been reviewed and the recommendations have been accepted with the following two exceptions.
2. Paragraph 3.e. on the status of pasteurized fruit juices. The recommendation to not require Directory listing for pasteurized fruit juice producing/processing facilities is accepted for facilities within the United States. Facilities located outside of the United States will still require Directory listing and audit approval. Non-pasteurized fruit juices will continue to be banned from DoD procurement.
3. Paragraph 3.g. on the DoD food sampling program. The general concept to permit both origin and/or destination food sampling is accepted. The details of the program such as requirements for testing by the food producing establishments, the use of Certificates of Conformance for laboratory analysis, and determination of products to be sampled will be published in AR 40-657 after agreement between concerned parties through normal document staffing and approval procedures. The use of origin sampling should be maximized to reduce potential product recalls and to minimize time delays associated with destination sampling. Test results of destination samples are often received after the product has been sold, issued, and /or consumed, making risk communication and recall efforts difficult.

Encl

JOHN S. FOURNIER
Colonel, VC
Director, DOD Veterinary Service Activity/
Chief, U.S. Army Veterinary Corps

MINUTES OF THE FOOD RISK EVALUATION COMMITTEE MEETING

1. In accordance with Letter of Instruction (LOI), HQDOD (DODVSA), subject: Food Risk Evaluation Committee (FREC), and electronic mail message, HQ DOD (DODVSA), 18 July 2002, and memorandum, U.S. Army Veterinary Command, MCVS-FA, 16 August 2002, subject: Agenda Items for the Food Risk Evaluation Committee (FREC), the FREC met on 28 and 29 August 2002, at Building 325, Fort Sam Houston, Texas 78234.

a. Members Present:

COL Pixley (NVM)	VETCOM	Chairman
COL Cates	100th Med Det	Member
COL Hicks	HQ, DeCA	Member
COL Hoskins	AMEDD C & S	Member
COL Meyer	VETCOM Lab	Member
COL Severin	DODVSA	Member
COL Taylor	106th Med Det	Member
COL Wolken	DLA	Member
LTC McLean	NAVSUP	Member
CW5 Jordan	VETCOM	Member
Mr. McNeil	USA CHPPM	Member
Mr. Odette	Nav Env Hlth Ctr	Member

b. Members Absent:

COL Kelsey	VETCOM	Member
Col Van Hook	USAF OTSG	Member
LTC Mason	DSCP	Member
LTC Schuckebrock	AAFES	Member
MAJ Williamson	46th Med Det	Member

c. Others Present:

COL Cornwell	HQ CENTCOM	46th Med Det Representative
LTC Parker	AMEDD C&S	Observer
Maj Fuller	Brooks AFB	USAF Representative
MAJ King	VETCOM Lab	Observer
CW5 Farrell	AMEDD C&S	Observer
Mr. Kilburn	VETCOM	Coordinator

2. Opening Remarks. COL Pixley called the meeting to order at 0800, 28 August 2002.

3. New Business.

a. APC's (Fish). Dr George J. Flick, J. University Distinguished Professor, Department of Food Science & Technology, Virginia Tech presented the factors which control the microbial counts in fish. Dr. Flick concluded that it is undetermined what APC count would be appropriate

as a standard for fish due to the number of variables involved with each species. No action was required by the FREC.

b. COL Meyer presented to the FREC that some of the microbial limits established by VETCOM's implementation of MIL-STD-3006 (APC and other tests) were not taken from regulatory or industry guidelines, nor were they cited in the procurement contracts and do not appear to have a science-based rationale. COL Meyer also stated that any quality standards for food products should be established by agreement with the appropriate procurement agency and be referenced in contractual documents. The proposal was made that VETCOM, under the direction of COL Meyer, conduct a comprehensive review of the present limits and to identify inappropriate tests and standards for deletion, then develop alternate protocols and applicable criteria and science-based methodology. The FREC voted to accept the proposal.

c. COL Meyer introduced representatives from Kraft Foods who presented Kraft's Supplier/CoC manufacturer HACCP Standard (Encl 1). They also explained Kraft's Certificate of Analysis program and their Certificate of Conformance program. Kraft asked the FREC to recommend to The Surgeon General that Certificates of Conformance be used in lieu of veterinary service audits and Certificates of Analysis be used in lieu of the DOD sampling program. Kraft requested if those recommendations were not agreeable, they would like to see the military return to origin lab sampling. The FREC agreed to consider the COC issue, but took no action on the COA recommendation.

d. COL Pixley asked Mr. Kilburn to explain to the committee the International Packaged Ice Association (IPIA) recent request to modify their standard adopted by us for MIL-STD-3006A. Mr. Kilburn explained the microbiological and chemical requirements under the modified standards (Encl 2). The FREC voted to adopt the IPIA's modified standards for use in MIL-STD-3006A.

e. COL Wolken reminded the committee that the 2000 FREC voted to require Directory listing of all juices and the April 2001 FREC amended this requirement to fall in line with the Food and Drug Administration (FDA) requirement. In addition, the September 2001 FREC voted to require a modified audit plan. COL Wolken asked the present status of fruit juices. Mr. Kilburn reported that all juice plants that had been audited (most have been audited) have shown no major or worse findings since our program has been totally in force. This is attributed to the attention the FDA has given this product and the DOD audits. The committee voted to amend the DOD policy to allow the procurement of pasteurized juices without Directory listing. Non-pasteurized juices remain unauthorized for procurement.

f. COL Hicks recommended a committee be established to review the current Approved Sources list and validate the science supporting the risk assessment of each item on the list and present the data to the FREC. The FREC would then decide whether the item or product should remain on the list. COL Hoskins made a proposal that COL Hicks or anyone else wishing a product removed from or added to the Approved Source list bring that product(s) along with supporting data to the committee for consideration. COL Hicks withdrew his recommendation. The committee approved COL Hoskins proposal.

g. CW5 Jordan addressed the committee concerning the DOD sampling program. CW5 Jordan presented a general concept of changing the destination sampling program to an origin and destination sampling program (Encl 3). Origin sampling would target the most frequent cause of reported foodborne disease. Plants would be required to have testing performed on required products at an independent laboratory. These results would be made available to the DOD during sanitation audits. Destination sampling would target DOD facilities only. Vendors would be required to submit Certificates of Analysis (COAs) for potentially hazardous and ready-to-eat foods. AR 40-657 would outline the program concept and MACOMs would supplement the regulation to fit their needs. The FREC voted to approve the concept.

h. COL Severin led a discussion concerning reducing the Kraft proposal to exempt plants based upon a COC. The committee voted and approved to rewrite 40-657 to allow the use of COC for process controls and quality issues for the frequency reduction of audits, but not to exempt facilities from all audits or Directory listing.

i. Mr. McNeil briefed the committee on the implementation of TG 188, Food and Water Vulnerability Assessment Guide. Mr. McNeil stated that the three CONUS CHPPM sub commands have been trained and he is doing a one-hour briefing at the Force Health Protection Conference. No action was required by the FREC.

j. Mr. McNeil indicated that the food manager certification program is in completion stage. Mr. McNeil anticipates that national certification will be obtained when it is submitted to the Conference for Food Protection next fiscal year. He stated that this should be a drastic monetary savings over the Safe Serve program. No action was required by the FREC.

k. Mr. Odette presented all services requirements for the washing and sanitizing of fresh fruits and vegetables (Encl 4). Mr. Odette made the point that the requirement is far from standardized as indicated by the enclosure. No action was required by the FREC.

l. Maj Fuller reviewed the Air Force food sample program.

5. COL Pixley called for additional comments. There being no further business, the meeting was adjourned at 1045, 29 August 2002.


COL CHARLES E. PIXLEY
Chairman


ROBERT E. KILBURN
Coordinator

Policies & Standards

Supplier/Copacker Quality Expectations

Table of Contents Sections (Revised 3/30/98):

Introduction

1. Hazard Analysis Critical Control Point (HACCP)
2. Microbiological Testing and Control
3. Allergen Controls
4. Chemical Contamination Controls
5. Extraneous Matter Controls
6. Product Hold and Release Controls
7. Certification Programs
8. Quality Programs
9. Facility and Equipment Requirements
10. Purchased Material Controls
11. Rework Controls
12. Notification of Formula/Process Change
13. Traceability
14. Label Controls
15. Notification of Contract Manufacturer/Copacker Use
16. Food and Drug Guarantee
17. Heavy Metals Warranty
18. Proposition 65
19. Notification of Regulatory Contacts/Actions
20. Notification of Recycled Material Usage
21. Transportation & Storage Requirements
22. Quality Auditor Access

Comments and questions regarding content of these pages should be directed to Eric Gibson, 847.646.4308.

Comments and questions regarding the Quality Web Site should be directed to [KFNA Quality Site Support](#)

INTRODUCTION

A primary objective of Kraft Foods is to market safe products of consistent quality that meet or exceed our customer and consumer expectations. To accomplish this, it is important that our suppliers and comanufacturers have the same objective.

The Kraft Foods Supplier/Comanufacturer Quality Expectations detailed on the following pages are intended to help our current or potential suppliers, comanufacturers and Kraft Foods meet this objective. These expectations have been developed and revised after a review of product defects; quality audits of manufacturing sites; and a study of product retrievals throughout the food industry. Our review led us to identify which programs, if executed well, would have helped to prevent product retrievals, consumer complaints, rework, rejects and plant downtime.

It is your responsibility, as a current or potential Kraft Foods supplier or comanufacturer, to meet these expectations to ensure products produced for Kraft Foods are safe and satisfy our quality standards. If you have any questions about these standards, contact your Kraft Foods contracting representative.

We would like to stress that these are minimum expectations. They are essential for the effective management of food safety and quality. They are not intended to alter or eliminate any requirements that may be set forth in any contracts or product specifications issued by any Kraft Foods unit. These expectations take the place of any general requirements previously issued by subsidiary units of Kraft Foods, and are common throughout all divisions of Kraft Foods. By reference, these expectations become part of our purchasing contracts.

As you review the Kraft Foods Supplier/Comanufacturer Quality Expectations manual, you will note it does not detail how to set up product safety and quality systems in your company. It only identifies the basic programs that are necessary to produce safe products of consistent quality. Your expertise in your field will enable you to define the approach best suited to ensure compliance with these expectations.

Some expectations cover issues that routinely change. Regulatory authorities continually review and adjust the legal status or limits of ingredients. The scientific community may also present new product safety information. Kraft Foods may desire changes in quality programs to better ensure the safety and quality of our products. You are expected to maintain an awareness of regulatory issues as they arise. Kraft Foods will, in turn, advise you when new technologies or new learnings prompt a change in our requirements.

All of these expectations may not apply to every ingredient, commodity or packaging material we purchase. Our Quality Auditors, when conducting quality audits of facilities will evaluate alternate measures used to meet our goals, or the appropriateness of a specific requirement to your product or process.

We are pleased that you have accepted the challenge and opportunity to be a Kraft Foods supplier or comanufacturer. Our brand names represent a commitment to our consumers. You have an important role to play in maintaining and enhancing the value of our brands. We look forward to

working and growing with you. We truly believe "*Our Leadership Depends on the Linkages We Create* " and feel our suppliers and comanufacturers are a key link in our quality chain.

Chapter 1: HACCP

Policy

Suppliers or comanufacturers of ingredients, products or packaging materials (direct contact) for Kraft Foods shall have a documented hazard analysis and if food safety hazards are identified, a HACCP plan in place to control those potential hazards.

Definitions

HACCP A systematic approach to the identification, evaluation and control of food safety hazards.

Hazard

A biological, chemical or physical agent that is reasonably likely to cause illness or injury in the absence of its control.

CCP (Critical Control Point)

A step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

Requirements

The supplier or comanufacturer shall have a documented HACCP plan for each ingredient, product and packaging material (direct contact) produced for Kraft Foods. The HACCP plan, including the hazard analysis, shall be developed per the criteria provided in the Kraft Foods Supplier/Comanufacturer HACCP Standard. Specific roles and responsibilities of HACCP plan development are also provided in the Standard. HACCP plan development shall be consistent with the seven HACCP principles defined by the National Advisory Committee on Microbiological Criteria for Foods (NACMCF).

1. Conduct a hazard analysis.
2. Determine the critical control points (CCP's).
3. Establish critical limits.
4. Establish monitoring procedures.
5. Establish corrective actions.
6. Establish verification procedures.
7. Establish record-keeping and documentation procedures.

Validation

A HACCP plan validation shall be conducted to ensure that the HACCP system is functioning as intended and to determine whether the plan needs modification. A validation checklist is provided in the Kraft Foods Supplier/Comanufacturer HACCP Standard. A validation should be conducted; after a new plan is implemented; whenever there is a modification to the plan, e.g., new equipment; changed ingredients; whenever there is a systematic or recurring product safety issue or industry recall; and at least annually.

Training

Personnel shall receive annual training in HACCP. Training shall include understanding of CCPs; associated critical limits; measurement methods; operation, testing and calibration of the measuring equipment; and corrective actions to be taken. Training of personnel shall be documented.

Corrective Action

Management shall ensure that appropriate corrective actions are taken when monitoring indicates a deviation from the critical limits of a CCP. Personnel shall document the disposition of non-compliant product and corrective actions taken.

Reject Material

Products found to deviate from critical limits of a CCP shall not be shipped to Kraft Foods.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. Records of CCP measurements, product disposition, corrective actions, verification, etc., shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 2: Microbiological Testing and Control

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have a system in place to detect, prevent and control undesirable microorganisms.

Definitions

Microbiologically Sensitive

Any ingredient or finished product that can permit the survival of a zero-tolerance pathogen, or the growth of any pathogen or spoilage organism.

Pathogen

A food, water or airborne organism of public health significance that can cause illness in humans.

Spoilage Microorganism

Yeasts, molds and bacteria that can cause product spoilage.

Undesirable Microorganism

Any microorganism that is a pathogen, causes product spoilage, or is an indicator of unsanitary conditions.

Zero-Tolerance Pathogen

Any pathogen for which a zero tolerance has been established by Kraft Foods or regulatory authorities.

Requirements

The microbiological control program shall include the following:

Process Controls

Shall include documented thermal, chemical or other means of controlling or destroying undesirable microorganisms that may be present in the product. A system shall also be in place to monitor critical control points (CCP) used to control microbiological hazards.

Perishable products or ingredients shall be stored at appropriate temperatures and times to preclude growth of undesirable organisms. Documentation of storage time and temperature controls shall be maintained.

Sanitation Controls

Shall include a documented procedure for cleaning and sanitizing equipment (automated or manual) and the facility with sufficient frequency to prevent or eliminate the presence of undesirable microorganisms.

Environmental Controls

Shall include controls to prevent cross-contamination resulting from condensate, human handling or intervention, airflow, movement of product and traffic patterns within the plant. An environmental monitoring program for pathogens shall be in place for microbiologically sensitive products.

Laboratory Controls

Shall include a laboratory design and laboratory practices that prevent cross contamination of production areas, products or samples by undesirable microorganisms. Laboratory practices shall include appropriate laboratory equipment and test controls to ensure the validity of results. Laboratory operations shall adhere to Good Laboratory Practices (GLP).

Utility Controls

Utilities, such as compressed air, potable or processed water, steam, and re-circulated cooling water, brine, etc. shall be adequately controlled to ensure products being manufactured are not contaminated with undesirable microorganisms.

Contract Laboratories

Outside or in-house laboratories utilized for pathogen testing shall be approved by Kraft Foods and participate in the Kraft approved check sample program. The Kraft Foods contracting representative will identify outside laboratories that are approved by Kraft.

Product Holds

Products tested for pathogens shall be placed on hold pending acceptable results. Approval by the Kraft Foods Vice President of Quality shall be obtained prior to testing products once they have been released to Kraft Foods. If product contact surfaces are also tested for pathogens, associated product shall also be placed on hold pending acceptable results.

Verification and Documentation

Control programs shall include documented tests to verify effectiveness. These verification tests shall be conducted annually for process controls (time, temperature, pressure, acidity, etc.); sanitation controls (temperature, time, concentration, equipment swabs, etc.); laboratory; utility; and environmental controls (pathogen swabs, air exposures, etc.). Official or Kraft Foods approved analytical methods shall be used where appropriate.

Training

Employees shall be trained in Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP) as appropriate to their function. Training of personnel shall be documented.

Corrective Action

When undesirable microorganisms are found in a product, the facility or the environment, a documented root cause analysis shall be conducted and corrective action taken to prevent recurrence.

Reject Material

Product found to contain pathogens or toxins shall not be shipped to Kraft Foods.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records of microbiological controls and testing performed on products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 3: Allergen Controls

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have controls in place to prevent the presence of unlabeled allergens in products.

Definitions

Allergens

Foods or food constituents known to produce allergic reactions (See the list on the next page) in an "at risk or high risk subpopulation."

Risk

An estimate of the likely occurrence of a hazard or illness.

Hazard

A biological, chemical or physical agent that is reasonably likely to cause illness or injury in the absence of its control.

"At Risk or High Risk" Subpopulation

The part of the population with increased susceptibility to a potential hazard.

Requirements

Raw materials used in the production of each product shall be reviewed to determine if allergens are present. If present, they shall be noted on the label and the hazard analysis shall be documented in accordance with HACCP requirements (See Chapter I and Kraft Foods Supplier/Comanufacturer HACCP Standard).

Allergens present in in-process products shall be properly identified. Programs shall be in place to prevent carryover to products not labeled as containing allergenic materials with products that contain other allergens.

A documented program for handling rework that may potentially contain allergens shall be in place. The program shall ensure that rework is properly labeled and added only to products with like ingredients.

All equipment used to produce products containing allergens shall be cleaned prior to use for production of allergen free products or products containing a different allergen. Cleaning procedures shall be documented. Cleaning shall include inspection of the equipment by Quality or management personnel and be documented upon completion.

Training

Plant personnel shall receive training in preventing contamination of allergen- free products with allergencontaining ingredients, products or rework. This training shall include: allergen awareness; equipment cleaning and evaluation; rework controls and disposition of rejected product. Training of personnel shall be documented.

Management shall maintain an ongoing awareness of allergenic substances. The medical community or regulators may, at any time, identify new allergens.

Corrective Action

When allergens are determined to be present in products not intended to contain them, a documented investigation shall be conducted to determine the root cause and action taken to prevent recurrence.

Reject Material

Product found to contain allergens not declared on the product label shall be reworked into properly labeled product or destroyed.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records shall be available for review during audits or inspections by Kraft Foods quality auditors.

Food Allergens

The food allergens listed below may produce life-threatening reactions in sensitive individuals.

Celery (Includes root, leaves or stalk. Does not include seeds).

Egg and egg products (Egg and egg products may be components of other materials such as mayonnaise, meringue and ovalbumin.)

Milk and milk products (Milk and milk products may be components of other materials including: butter, buttermilk, casein, cheese, cottage cheese, curds, whey, lactoglobulin, lactose*, malted milk, some margarines, milk chocolate, cream, custard, ice cream, nougat, pudding, sodium caseinate, sour cream or yogurt.) **Lactose, if it contains protein should be considered an allergen.*

Peanut (Foods/ingredients which may contain this material include: peanut butter, mixed nuts, nut pieces, peanut flour, peanut protein, hydrolyzed peanut protein).

Seafood (Each type of seafood should be considered as an allergen distinct from the other listed seafood allergens: Crustacean species such as shrimp, prawn, crab, lobster, crafish; Mollok species such as mussel, clam, cockle, oyster, scallop; and Fish species, such as cod and salmon. Does not include Tuna, Gelatin from fish bone, or Worcestershire Sauce containing anchovy paste.

Seeds (All these materials are part of the seeds' category. Each of these materials, or products of these materials in this category are to be treated as a separate allergen: Cottonseed; Poppy Seed; Sesame Seed; and Sunflower Seed).

Soybean and soybean-based products (Soybean and soybean-based products may be components of other materials such as meats containing soy-derived "vegetable protein" or "textured vegetable protein" like miso and tofu.) *Soy lecithin should not be considered as an allergen.*

* **Sulfites** (sulfur dioxide, sodium metabisulfite or sodium bisulfite. Foods/ingredients that may contain this material include: wine, dried fruits, bulk-processed potatoes, dried vegetables.

Tree Nuts (Each of these materials or products of these materials in this category is to be treated as a separate allergen. These include: Almond; Brazil Nut; Cashew; Chestnut; Hazelnut (Filbert); Macadamia Nut; Pecan; Pine Nuts such as pinyon or pinon; Pistachio; and Walnut).

Wheat (Foods/ingredients that may contain this material include: bran; bread crumbs; cereal extracts; cracker meal; farina; graham flour; malt; wheat flour, genn-4 gluten and starch; and semolina.

Note: Refined, bleached and deodorized oils derived from any of the above are considered to be nonallergenic

** Sulfites are not allergens, but they have caused life-threatening reactions. Regulation in North America requires that foods which contain 10 ppm or more of sulfite include "silfite" on their ingredient statement.*

Chapter 4: Chemical Contamination Controls

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have controls in place to ensure that only chemicals, ingredients, lubricants or additives which are legally permitted and declared, are present in products. No biological or chemical materials (sewage sludge, biomass or liquid effluent) originating from Municipal Wastewater Treatment Plants (POTW's) or similar facilities shall have been applied to the land where crops have been or are grown for human consumption.

Definitions

Regulatory Authority

Any duly authorized agent or employee of any government agency empowered to enforce laws relative to food products.

Any religious organization which defines requirements for special product certification (i.e., Kosher).

Pesticides

Compounds classified as such by the regulatory authorities of the location where produced and the destination to which products may be delivered. These include, but are not limited to, fungicides, insecticides, rodenticides and herbicides.

Illegal Residue

Substances (i.e. chemicals, drugs, food additives, lubricants) remaining on or in a product, when shipped, that exceed tolerances established by regulatory authorities. This also includes substances for which no tolerance has been set or which are not *Generally Recognized as Safe* (GRAS).

Sewage sludge (Biomass)

Includes compounds classified as such by the regulatory authorities of the location where products are produced and/or the destination to which products may be delivered. These include, but are not limited to, solid and liquid residuals from publicly owned wastewater treatment operations (POTWs) and other environmental treatment operations used to treat municipal wastes (sanitary and/or industrial). Sewage sludge exclude residuals from farm and food processing facilities such as manure, whey, pretreatment plant sludges and biomass if the pretreatment plant only processes wastewater from food processing operations.

Requirements

Raw agricultural commodities shall be reviewed to determine if pesticide residues are present. Such review can be conducted through analysis of the commodity or through controlled oversight of the grower, producer and other persons handling the product. Special care shall be taken to ensure that only pesticides approved for the specific purpose are used on or around products.

Raw agricultural commodity suppliers shall be reviewed to determine if their lands have ever been used for sewage sludge disposal. Such review can be conducted through controlled oversight of the grower, producer and other persons handling the product or review of public land application permit records. Suppliers or comanufacturers to Kraft Foods shall have written specifications for purchased materials.

Procedures shall be in place to ensure that products shipped to Kraft Foods have not been exposed to illegal pesticides and do not contain pesticide residues which exceed legal tolerances.

A program shall be in place to ensure that in-storage or in-transit products are not exposed to potentially illegal residues. It is the responsibility of the supplier or comanufacturer to ensure that any pesticide used in direct contact with any processed food product or ingredient is applied in accordance with label directions and is approved for the purpose intended.

Only employees under the supervision of licensed or certified pest control operators meeting local regulatory requirements for registration, certification or licensing may apply pesticides. If contract pest control operators are used, the supplier or comanufacturer shall be aware of the types and amounts of pesticides used and must accompany the pest control operator on the premises at least quarterly to confirm that label directions and proper practices are followed. It is also the obligation of the supplier or comanufacturer to ensure that only properly labeled pesticides for the product, location, and target pest

are used. Records required by Kraft Foods and regulatory agencies shall be maintained. In addition to any other requirements, such records shall include: the chemical applied, EPA number (US Suppliers), lot numbers and date(s) of application.

The use of contract pest control operators does not absolve suppliers or comanufacturers from responsibility for any illegal pesticide residues on products shipped to Kraft Foods. Pest control operators shall carry sufficient insurance to indemnify Kraft Foods in the event that products shipped to Kraft Foods are found to contain illegal residues. A list of Kraft approved chemicals and an example of the contract used by Kraft Foods for outside pest control services is available through your Kraft Foods contracting representative.

Programs shall also be in place to ensure that ingredients or products sold to Kraft Foods including meat, poultry, fish, honey, milk and milk products do not contain illegal residues of any drugs or chemicals.

Training

Field personnel, purchasing agents or others connected with procurement, handling or sale of ingredients or products for Kraft Foods shall receive pesticide awareness training appropriate to their responsibility. This shall include a knowledge of approved pesticides and proper pesticide usage. Suppliers' and comanufacturers' employees shall also receive such training as necessary to ensure other forms of chemical contamination are not present. Training of personnel shall be documented.

National or local regulatory agencies continually review and adjust the legal limits of pesticide residues as well as the legality of pesticides that may be used on or near food products. This may result in the banning of a particular chemical or changes in use procedures. Suppliers and comanufacturers are expected to maintain an awareness of these actions and maintain compliance.

Corrective Action

When illegal residues are found in a product, an investigation shall be conducted to determine the root cause and action taken to prevent recurrence.

Reject Materials

Products bearing Kraft Foods labels that are found to have illegal residues shall be disposed of in a manner approved by Kraft Foods. If destroyed, such destruction shall be in accordance with applicable laws and regulations and in a method approved by Kraft Foods.

Record Retention

Records of chemical control programs and activities, including records of all chemical applications to control rodents, insects or other pests, shall be held for a period of two years. Such records shall include: the chemical applied, EPA number (US Suppliers), lot numbers and date(s) of application. Records shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 5: Extraneous Matter Controls

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have programs in place to prevent contamination with extraneous matter.

Definitions

Extraneous Matter

Any foreign object or material that is not intended to be part of the product (such as, glass, metal, plastic, wood, rust, dirt, rocks, paper, cloth, insect parts, rodents, hair, feathers).

Requirements

The supplier or comanufacturer shall conduct a risk assessment to identify potential extraneous matter hazards.

The supplier or comanufacturer shall also have documented procedures for the start-up of lines and the inspection of overhead areas and adjacent surfaces to ensure they are clear of materials that may contaminate the product. This start-up inspection shall include examination of screens, filters, magnets, gaskets and production equipment to ensure that all are in proper condition and operating in accordance with design specifications.

In addition to start-up inspections, physical inspections of the facility shall be conducted on a routine basis to ensure that light shields are in place and pest control programs are effective. Inspections shall also ensure that employees are complying with Good Manufacturing Practices (GMP) and are not contributing to product risk.

A preventive maintenance program shall be in place to ensure that equipment does not become a source of extraneous matter contamination.

All suppliers and comanufacturers shall have metal detectors at the finished product stage of their process prior to packaging. Where such is not practical, alternate control programs shall be in place (i.e., end point filters or screens and regular formal equipment inspections. The substantiated alternate methodology is subject to approval by Kraft Foods Quality Auditors. Metal detectors shall be capable of detecting ferrous and non-ferrous metals in sizes defined in product specifications. If no specifications exist, equipment shall be capable of detecting a 2.5 nun (or smaller) spherical piece of 316 stainless steel.

A documented procedure for calibration of metal detection equipment shall be available. The procedure shall include instructions for periodic (hourly, or several times per shift) testing of the equipment to ensure proper operation. Such tests shall be made with a 2.5 mm. (or smaller) spherical piece of 316 stainless steel or with sizes and types as required by the product specifications.

Training

Operators shall receive training in the operation, testing and calibration of detection equipment; Good Manufacturing Practices (GMP); and the extraneous matter control program. Training shall also describe actions to take when a potential extraneous matter contamination occurs including disposition of contaminated product.

Corrective Action

When extraneous matter is found in a product, a documented investigation shall be conducted to determine the root cause and action taken to prevent recurrence.

Reject Materials

Written instructions for disposition of rejected product, including control of rework, shall be clearly stated and approved by the appropriate management personnel. If the product bears a Kraft Foods label, approval by Kraft Foods is also required.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. Extraneous matter control records shall be available during audits or inspections by Kraft Foods quality auditors.

Chapter 6: Product Hold and Release Controls

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have effective controls in place to prevent the inadvertent shipment of non-conforming products or ingredients to Kraft Foods or the trade.

Definitions

Hold

The quarantine, blocking, segregation or containment of a product or ingredient to prevent its further use or distribution.

Category I - Used for a potential food safety, major regulatory, or major quality concern. Product must be placed in a segregated and secured area or physically obstructed; Each shipping unit will be visually identified as "Hold" product. Inventory must be confirmed daily.

Category II - Used for cases when a nonconformity poses a potential product quality or minor regulatory concern. Computerized hold is sufficient if the system effectively blocks selection and shipment of product, or product must be visually identified or physically obstructed.

Non-Conforming,

A product or ingredient that fails to meet specifications or regulatory requirements.

Disposition

Determination of the action to be taken on product placed on hold, including release, rework or destruction.

Requirements

The supplier or comanufacturer shall have documented procedures to hold products suspected of nonconformance or which are awaiting test results and CCP verification. These documented procedures shall be current and pertain to the entire hold and disposition process, including responsibility for communicating information between internal and external parties.

Any products or ingredients suspected to be non-conforming shall be placed on hold immediately upon discovery. Each pallet or module shall be physically identified as "on hold." Products on hold for potential food safety, major regulatory or major quality concerns shall be placed under a Category I hold. The method used for identification (tags, stickers, signs, etc.) shall be used only for hold and release purposes. Products posing a potential product quality or minor regulatory concern shall be placed under a Category II hold.

A process shall be in place to immediately notify Kraft Foods when any product or ingredient produced for Kraft Foods, or designated for shipment to a Kraft Foods facility, is inadvertently released from hold. If a Kraft labeled product, the Kraft Foods Contracting Representative shall be advised of the product hold and shall be consulted for guidelines for product disposition decision.

Personnel shall be designated with the authority and responsibility for management of hold and release programs, including monitoring and tracking held product through disposition.

Documented authorization shall be required for all disposition actions. Disposition shall be determined and completed timely and shall include code dates and quantities involved. An audit of the hold and release program shall be conducted at least annually.

Training

Training and awareness sessions shall be conducted at least annually for all employees involved with hold and release programs. Training of personnel shall be documented.

Corrective Action

Each non-conformity that led to a hold shall be evaluated for root cause. Documented corrective action shall be taken to prevent like situations from recurring.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years or as required by product specification, whichever is longer. Records of products sold to or manufactured for Kraft Foods that have been subject to a product hold shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 7: Certification Programs

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods authorized to participate in a Kraft Certification program shall have systems or programs in place to ensure compliance with those programs as agreed. Nothing in such programs shall negate any contractual or specification requirements or any requirements imposed by regulatory authorities.

Definitions

Certificates of Analysis (COA)

A document attesting to specific analytical results as required by specifications.

Certificates of Conformance (COC)

An annual certification of a supplier's or comanufacturer's HACCP, Microbiological Controls, and prerequisite programs to verify food safety and specification compliance of ingredients, products or other materials produced for Kraft Foods.

Kosher or Halal Certificates

An annual (or designated time period) certification of specified ingredients or finished products verifying Kosher and/or Halal and specification compliance.

Requirements

Certificates of Analysis (COA)

If a Certificate of Analysis (COA) is required by specifications, written test results of all required analyses for each lot using the method specified shall accompany or precede each shipment. If a Reference Method is specified, any other methods used must correlate to that reference method. In the absence of a specified method, a standard method will be used.

If a COA for pathogen testing is required for this material, the pathogen testing must be performed either by a Kraft Foods approved laboratory or the or the firm's internal laboratory. If used, supplier and comanufacturer laboratories must be approved by a Kraft Foods Microbiological and HACCP Audit. Internal laboratories must be enrolled in a Kraft Foods approved check sample program.

Certificates of Conformance (COC)

A supplier or comanufacturer will be selected as a COC candidate based on performance history and an evaluation by a Kraft COC certification assessment team.

If a COC program is in place, the supplier or comanufacturer guaranties that products or ingredient for Kraft Foods were produced under the following conditions: (1) All pre-requisite programs were in place and functioning; (2) A HACCP Program was in place (see Chapter 1); (3) All CCP's were correctly monitored; (4) No deviations from required parameters occurred during production of products supplied; (5) Environmental controls were in place, monitored and samples met prescribed parameters; and (6) All Kraft specifications have been met.

Kosher or Halal Certificates

If a Kosher or Halal Certificate is required by specification, the updated certificate must be forwarded on or before time of expiration to the Kraft Foods contracting representative. The appropriate Kraft raw material code(s) shall be written, printed, or typed on the certificate to identify the specific material(s) covered. Comanufactured product certificates shall reference either Kraft or the brand name(s) (written, printed or typed) on the certificate as required by contract or specifications.

Training

Suppliers and comanufacturers certified under these programs shall ensure that employees receive training in the applicable programs required to meet the COA or COC program, specification and SQE requirements. Such training will be documented and include annual refresher training as appropriate.

Corrective Action

Quality system failures that lead to noncompliance with Kraft Foods Supplier/Comanufacturer Quality Expectations, Kraft Foods specifications, regulatory, COC or COA requirements, shall be evaluated for root cause. Corrective actions shall be taken to prevent like situations from occurring. Kraft Foods shall be notified immediately of any product shipped which is subject to such failures.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by specification, whichever is longer. All quality system records pertaining to products or ingredients for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 8: Quality Programs

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall include in their quality system the programs contained in this document as well as those required by regulations.

Definitions

Quality Program

A logical sequence of actions designed to ensure specific product quality specifications are met.

Requirements

Quality programs that shall be in place include, but are not limited to, the following:

Conformance to Specification

The supplier or comanufacturer shall have policies and procedures in place to ensure products meet all Kraft Foods specifications. Appropriate plant personnel shall have access to the latest specifications for products supplied to or manufactured for Kraft Foods.

Certificates of Analysis

If a Certificate of Analysis (COA) is required by specifications, written test results of all required analysis for each lot using the method specified shall accompany or precede each shipment. If a Reference Method is specified, any other methods used must correlate to that reference method. In the absence of a specified method, a standard method will be used.

If a COA for pathogen testing is required for this material, the pathogen testing must be performed either by a Kraft Foods approved laboratory or the supplier's or comanufacturer's internal laboratory which must be approved by a Kraft Foods Microbiological Assessment and must be enrolled in a Kraft approved laboratories check sample program.

Raw Material Information Sheets (RMIS)

Suppliers shall have policies and procedures in place to ensure response to an RMIS inquiry when requested. The RMIS response shall include accurate, updated and complete nutrition, ingredient composition, allergen, microbiological, Material Safety Data Sheets (MSDS) and other information as required and shall be returned to Kraft in accordance with the RMIS request.

Good Manufacturing Practices (GMP)

All plant personnel, visitors and outside contractors shall comply with Good Manufacturing Practice requirements as set forth by current laws and regulations of the location in which products are produced and the destination to which products may be delivered. Buildings, grounds, equipment and processes shall also meet GM? requirements.

Good Laboratory Practices (GLP)

All plant laboratories and laboratory personnel shall comply with Good Laboratory Practice requirements as set forth by current laws and regulations of the location in which products are produced and the destination to which products may be delivered.

Pest Controls

A documented pest control program shall be in place to effectively prevent pest activity in the facility or surrounding area. This program shall be managed by trained plant personnel. Pest control activity shall be performed by certified pest control operators or personnel with equivalent training. A copy of the pest control operator's current license shall be maintained at the facility. Rodent traps in food manufacturing or storage areas shall be serviced at least weekly or more often as pest activity warrants. Locations of traps should be identified on a site map. Records of pest control chemical applications shall include name, quantities EPA Number (US Firms) and lot number of product(s) used. Use of all insecticides, fungicides or rodenticides shall be in accordance with current laws and regulations of the location in which products are produced and the destination to which products may be delivered. (See also 4. *Chemical Contamination Controls*.)

Sanitation Controls

The supplier or comanufacturer shall have a documented sanitation program in place that meets regulatory and Kraft Foods standards. The program shall ensure the cleanliness of the food handling equipment and the facility. Only cleaning chemicals that are approved for use in food manufacturing facilities shall be used. A system for verifying and documenting the effectiveness of the sanitation program shall be in place.

Housekeeping Controls

Suppliers or comanufacturers shall have a designated person(s) inspect their facility at a set frequency (preferably weekly, but at least monthly) to evaluate conditions that may impact food safety or quality. The following items shall be included in this review: facility grounds; exterior and interior building structure; employee, contractor and visitor GNIPs; material handling and storage; operational sanitation; and pest control. The deficiencies found and corrective actions taken shall be documented.

Weight Controls

The supplier or comanufacturer shall have a weight control program that complies with all applicable regulatory requirements. The weight control program shall include the application of statistical process controls, routine scale calibration, corrective action plans and guidelines for handling non-compliant product.

Laboratory Controls

The supplier or comanufacturer shall have documented testing procedures. These procedures shall be based on official test methods (including sample size) or test methods which have been validated for the intended use. An index showing the date of issuance of the current approved method shall be maintained. Testing frequencies shall be specified and Good Laboratory Practices (GLP) followed.

Periodic analyst evaluations and internal audits of laboratory practices, collaborative studies and statistical evaluation of data shall also be a part of the laboratory's operating protocol.

Equipment Calibration Controls

The supplier or comanufacturer shall have a documented program to ensure that all measurement, analytical and processing equipment are in calibration. The program shall meet any appropriate regulatory and industry standards. All product affected by equipment determined to be out of calibration shall be held and reevaluated for conformance to specifications.

Reject Material Controls

Products or ingredients that do not meet specifications shall not be delivered to Kraft Foods, labeled with a Kraft Foods label or shipped to any other location that could result in inadvertent use by Kraft Foods. If a Kraft labeled product, the Kraft Foods Contracting Representative shall be advised of the product hold and shall be consulted for guidelines for product disposition decision.

Transportation Controls

The supplier or comanufacturer shall have a documented program to ensure the safety and cleanliness of all conveyances used to transport products produced for Kraft Foods. The program shall include an inspection of conveyances to determine suitability for transport of food products. Care shall be taken to avoid potential cross contamination of products by hazardous or other materials shipped in the same conveyance.

Corrective Action

A documented investigation of each quality program failure shall be conducted to determine root cause and corrective action to prevent recurrence.

Training

Suppliers and comanufacturers; shall ensure employees receive training appropriate to their position that will enable them to perform the duties necessary to meet Kraft Foods Supplier/Copacker Quality Expectations, product specifications and regulatory requirements. Training of personnel shall be documented.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by specifications, whichever is longer. Records of these programs shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 9: Facility and Equipment Requirements

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall operate within a suitable facility using appropriate equipment for production, packaging and storage of food products. Both the facility and equipment shall be satisfactorily maintained.

Definitions

Suitable Facility

A facility in which the design, layout and utilities meet all Good Manufacturing Practices (GM?), industry standards and present no food safety or other risk to Kraft Foods.

Appropriate Equipment

Equipment that conforms to regulatory and industry standards. Equipment must be of a sanitary design and capable of producing products or ingredients which consistently meet specifications.

Requirements

Facility, equipment design and maintenance shall be suitable and appropriate for its intended use at the inception of the supplier or comanufacturer's intent to contract with Kraft Foods. Equipment used in the manufacture of food or food contact packaging shall be cleanable and protect the product from contamination.

Facilities supplying or comanufacturing materials, ingredients or products to Kraft Foods must be approved by Kraft Foods. Suppliers and comanufacturers shall register with Kraft Foods all facilities that are utilized for comanufacturing or supplying products to Kraft Foods.

Training

Suppliers and comanufacturers shall ensure that employees or agents responsible for the design, creation or purchase of facilities and equipment, as well as those providing the periodic evaluation of each, are qualified to recognize and meet these expectations.

Corrective Action

Programs shall be in place that periodically assess facilities, equipment and storage practices and provide for correction of any deficiencies.

Record Retention

Records of evaluations and corrective actions, including maintenance activities, improvements and changes, shall be updated as changes are made and maintained. All records shall be available for review during audits or inspections by Kraft quality auditors.

Chapter 10: Purchased Material Controls

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have controls in place to ensure purchased materials comply with specifications and applicable government regulations.

Definitions

Government Regulations The laws and regulations of the location in which products are produced and the laws and regulations of the destination to which products may be delivered.

Purchased Materials

Ingredients or materials purchased for use in the production or packaging of products or ingredients for Kraft Foods.

Requirements

A program shall be in place to approve suppliers of purchased materials which are used in products, ingredients or packaging for Kraft Foods. This program shall include the periodic evaluation of the supplier's performance and the supplier's facilities. Suppliers or comanufacturers to Kraft Foods shall have written specifications for purchased materials.

Reject Materials

A system shall be in place to ensure that purchased materials which do not meet specifications or regulatory requirements are placed on hold until proper disposition can be made.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records pertaining to control of purchased materials used in products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors

Chapter 11: Rework Controls

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have a system in place to control the use of rework material in any products or ingredients supplied to Kraft Foods.

Definitions

Rework Material

Surplus product or product failing to meet specifications which will be added to the formula in a subsequent production run.

Allergens

Foods or food constituents known to produce allergic reactions in sensitive individuals (See Chapter 3 -Allergen Controls).

Microbiologically Sensitive

Any ingredient or finished product that can permit the survival of a zero-tolerance pathogen, or the growth of any pathogen or spoilage organism.

Requirements

Product formulas and processing directions shall have specific provisions regarding the use of rework material. These provisions shall include: amount of rework to be used; acceptance criteria; conditions of storage; reprocessing steps; identification of allergens; use in like-labeled products; age limitations; special handling requirements; and lot number identification for traceability. (See *Traceability Controls*.)

Special care shall be taken to ensure all allergens which may be used in rework are identified and used only in like labeled products.

All rework shall be identified and quarantined as appropriate. Microbiologically sensitive rework shall receive a "kill step" prior to or during the rework process. In the event that a "kill step" is not used, the product to which the rework was added must be microbiologically tested following the rework process.

Rework shall be managed so the cycle of use is "broken" at a sufficient frequency to prevent perpetual use and avoid impeding traceability.

Training

Employees engaged in handling rework material shall be trained in any special safeguards required by the rework process. They shall also know what limitations exist on amounts or types of material that may be reworked.

Reject Materials

Reject material shall be clearly identified. The reason for rejection of the material and its disposition shall be noted on the batch or lot record.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. Records of reworked material used in products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 12: Notification of Formula/Process Change

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have a system in place to notify the Kraft Foods contracting representative of any proposed changes in product formula, raw materials, production facility or processes that may impact the functionality, quality or ingredient statement of a finished product.

Definitions

Ingredient Statement

The list of ingredients that appears on the product, or on any subsequent product in which it is used.

Nutrition Labeling

Labeling statements required by the FD&C Act or related acts, including the Nutrition Labeling and Education Act (NLEA) or other laws of the location in which the products are produced and the destination to which products may be delivered.

Functionality

May include, but is not limited to: microbiological inhibition properties; shelf life; organoleptic properties and performance characteristics.

Requirements

The Kraft Foods contracting representative shall be notified in writing prior to any changes in a formula or process used for the manufacture of products for Kraft Foods. Any effect on ingredient statements, nutrition labeling or functionality of the product shall be identified.

For meat products produced under USDA HIS inspection, products and labels must comply with the USDA Code of Federal Regulations and the appropriate USDA HIS directives for food products.

Record Retention.

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records of formula or process changes in products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 13: Traceability

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have a system in place to identify and trace all products, ingredients and their components.

Definitions

Lot

A defined quantity of a product or ingredient produced within a given time period or using a specific piece of equipment.

Lot Number

A unique number that is traceable to documents which identify a specific lot and its production history.

Traceability

The ability to establish the production history of all components of a product lot and the complete disposition of that lot (where and when shipped, used or destroyed).

Production Record

Documents detailing the history of a lot of finished product, including amounts and lot number of all component materials and rework, processing steps, control charts, test results, amount produced, formal releases and disposition.

Requirements

A system shall be in place to enable the supplier or comanufacturer to rapidly trace the entire history of a specific lot. This shall include identification of all materials, rework, process conditions and the customers to whom the lot was distributed. Periodic mock recalls shall be conducted to validate the effectiveness of the traceability process. All Kraft contracted comanufacturing locations will be assigned a unique three letter location code by Kraft. This code must appear on all individual packages of any Kraft products manufactured at that location.

To facilitate the traceability process, incoming materials shall be identified with a lot number through which the source, date received and any special characteristics of the material can be determined. The lot number shall be clearly identified on the shipping container and recorded on manufacturing records of products in which the material is used.

Material which is suitable for rework shall be identified and its lot number appropriately recorded on production records of the product in which it is used.

All production runs shall be identified with lot numbers which enable complete linkage from raw material receipt through final packaging.

Training

Employees shall be trained to properly record lot numbers, maintain production records and trace products or ingredients.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All traceability records of products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 14: Label Controls

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have controls in place to ensure proper labeling of materials or ingredients supplied to Kraft Foods.

Definitions

Ingredient/Raw Material Label

A label used on products intended for further processing.

Retail Product Label

A label used on a product intended for retail distribution.

Food Service Label

A label used on a product intended for institutional distribution.

Requirements

Label controls shall include safeguards to ensure that labels applied to products, materials or ingredients produced for or supplied to Kraft Foods meet all regulatory requirements, specifications and informational requirements of Kraft Foods. The labels shall accurately describe the product, material or ingredient.

Ingredient and raw material labels shall include: Kraft Foods required product codes; lot numbers; ingredient names; net contents; name and address of manufacturer, distributor, or comanufacturer; and applicable kosher symbol if appropriate. Raw materials supplied to USDA inspected plants shall meet all USDA ingredient labeling requirements. This shall include a listing of all ingredients in the product supplied. This required listing of ingredients may be on each individual container, one listing contained within the overwrap on a pallet of ingredients, or a listing on the invoice of a bulk shipment.

Retail product labels shall meet all Kraft Foods requirements in addition to FDA, USDA or other regulatory requirements of the location in which the product may be distributed. This shall include, but is not limited to: legal and/or common or usual name of the food; ingredient clause; Nutritional Labeling and Education Act (NLEA) information; net contents statement; name and address of manufacturer, packer or distributor; lot number and Kraft product codes.

Food service labels shall meet all Kraft Foods requirements in addition to FDA, USDA or other regulatory requirements of the location in which the product may be distributed. This shall include: legal product name; ingredient clause; net weight statement; and name and address of manufacturer or distributor. If any nutritional claims are made, nutritional information must be supplied. Kraft Foods requirements include lot number, product codes and handling instructions as appropriate.

Special care shall be taken to ensure that ingredients identified as allergens (See Chapter 3 - Allergen Controls) are specifically listed on all labels.

Comanufacturer Special Label Requirements

All Kraft contracted comanufacturing locations will be assigned a unique three letter location code by Kraft. This code must appear on the all products comanufactured under a Kraft contract.

Kosher Certification

If an ingredient or product specification requires Kosher Certification, the appropriate Kosher symbol shall be placed on the label.

Training

Employees with responsibility for labeling shall be trained in Kraft Foods labeling requirements and any requirements set forth by FDA, USDA or other regulatory authorities of the location to which a product may be delivered. Such training shall include requirements of the Nutritional Labeling and Education Act (NLEA), allergen awareness training and other specialized training as appropriate to their levels of responsibility.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records of label controls for products or ingredients sold to or produced for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 15: Notification of Comanufacturer Use

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall notify Kraft Foods of any products or ingredients produced in a plant not wholly owned and operated by the supplier or comanufacturer.

Definitions

Comanufacturer

A third party manufacturer or packager of products that are sold under another firm's label. This would include joint ventures and trademark licensees.

Requirements

Suppliers and comanufacturers shall immediately notify the Kraft Foods contracting representative of any comanufacturers; used to package or produce products for Kraft Foods. All locations shall be registered with Kraft Foods, will be expected to meet SQE requirements, and may be audited by quality auditors from Kraft Foods.

Prior to using a comanufacturer for products destined for Kraft Foods, suppliers and comanufacturers shall ensure their comanufacturing firm has quality systems in place that satisfy the Kraft SQE requirements. Any deviations shall be discussed with the Kraft Foods contracting representative.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records of comanufacturer use for products or ingredients for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 16: Food and Drug Guaranty

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall provide the Kraft Foods contracting representative with a continuing Food and Drug Guaranty.

Definitions

FD&C Act

The Federal Food, Drug, and Cosmetic Act. (Title 21, United States Code.)

Food and Drug Guaranty

A written guaranty that all products supplied to Kraft Foods are in compliance with the United States FD&C Act.

Regulations

Rules and definitions pertaining to the enforcement of the act, generally found in Title 21 of the United States Code of Federal Regulations.

Requirements

The supplier or comanufacturer shall have a system in place to ensure that all products supplied or comanufactured are not adulterated or misbranded within the meaning of the FD&C Act or regulations. This requirement applies to suppliers and comanufacturers of ingredients or products made within the United States and products or ingredients shipped into the United States from any other country.

If a product is shipped to Kraft Foods in violation of applicable laws, the Kraft Foods contracting representative shall be notified immediately.

Record Retention

Records shall be maintained for the duration of all contracts with Kraft Foods. All records of Food and Drug Guaranties relative to products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 17: Heavy Metals Warranty

Policy

Suppliers or comanufacturers of packaging materials for Kraft Foods shall furnish a Heavy Metals Warranty. Comanufacturers of products produced and packaged for Kraft Foods shall obtain a Heavy Metals Warranty for any packing materials used for products comanufactured for Kraft Foods.

Definitions

Heavy Metals

Silver, arsenic, barium, selenium, lead, mercury, cadmium and hexavalent chromium.

Packaging Components

All elements of packaging including adhesives, labels, inks, dyes and stabilizers.

Requirements

Suppliers and comanufacturers; shall certify for all packaging materials (excluding glass) that heavy metals are not intentionally introduced into Kraft Foods packages or packaging components.

Suppliers and comanufacturers shall also certify that packaging materials supplied to Kraft Foods or used for any Kraft Foods labeled products do not contain more than a combined total of 100ppm of the following heavy metals from any source: lead, mercury, cadmium and hexavalent chromium.

Periodic monitoring of materials shall be conducted to ensure compliance with this policy.

Reject Materials

Materials rejected due to heavy metal contamination shall be disposed of in a manner consistent with sound environmental practices.

Record Retention

Records shall be maintained for the shelf life of the product being produced, or two years, whichever is longer. All records pertaining to heavy metal analysis and warranties on products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors

Chapter 18: Proposition 65

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods plants in the United States of America shall ensure that such goods meet all requirements of Proposition 65.

Definitions

Proposition 65

The California Safe Drinking Water and Toxic Enforcement Act of 1986 and the regulations thereunder as amended.

Requirements

Suppliers and comanufacturers shall ensure through analysis, review, or any other operation necessary that supplied or comanufactured goods meet all requirements of Proposition 65. Suppliers and comanufacturers shall represent and warrant that Kraft Foods shall be notified if any supplied or comanufactured goods contain chemicals that may, according to Proposition 65, cause cancer or reproductive toxicity. Suppliers and comanufacturers shall give written notice of goods containing such chemicals including the amount in excess of the levels established pursuant to Proposition 65.

Training

Appropriate employees shall be trained to recognize the applicability of Proposition 65 to products and ingredients supplied to or comanufactured for Kraft Foods.

Reject Material

Product which fails to meet the requirements of Proposition 65 shall be held and the Kraft contracting representative notified. Disposition of the product shall then be determined by the supplier or comanufacturer with agreement from Kraft Foods.

Record Retention

Records shall be maintained for the shelf life of the product being produced, or two years, whichever is longer. All records of ingredients subject to Proposition 65 which are used in products for Kraft Foods shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 19: Notification of Regulatory Contacts/Actions

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall have a system in place to notify Kraft Foods immediately of any regulatory visits, sample collections, regulatory actions or product retrievals which may relate to products or ingredients produced for Kraft Foods.

Definitions

Regulatory Authority

Any duly authorized agent or employee of any government agency empowered to enforce laws relative to food products.

Any religious organization which defines requirements for special product certification (i.e. Kosher).

Regulatory Contact

A visit, inspection, audit, survey, inquiry or other contact by any regulatory authority that results in the identification of objectionable conditions which require a response. This does not include those visits made on a regular basis (i.e. daily, weekly, monthly), unless such a visit reveals a product or ingredient destined for a Kraft Foods facility is not in compliance with applicable laws or regulations.

Regulatory Action

A seizure, embargo, hold of any product or a prosecution, injunction, citation, regulatory letter or notice of adverse findings from a regulatory authority or any federal, state, provincial or local court.

Product Retrieval

Any voluntary or involuntary retrieval of product that has been released for distribution.

Requirements

The supplier or comanufacturer shall immediately notify the Kraft Foods contracting representative when any product produced for Kraft Foods is directly or indirectly the subject of a regulatory contact or regulatory action.

When any product produced for Kraft Foods is sampled by a regulatory agency, all product represented by that sample shall be placed on hold. The Kraft Foods contracting representative shall be contacted for instruction prior to shipment to a Kraft Foods facility or before sale under a Kraft Foods label. A duplicate sample of the lot sampled by the regulatory authorities may be required by Kraft Foods.

Suppliers or comanufacturers shall immediately notify the Kraft Foods contracting representative of any voluntary or involuntary retrieval of a product.

Training

Employees shall be trained to ensure that Kraft Foods proprietary information is not released.

Corrective Action.

If regulatory authorities identify conditions that may violate laws or regulations, prompt corrective action shall be taken. The Kraft Foods contracting representative shall be notified of violations which directly or indirectly impact products produced for Kraft Foods and the actions taken to correct the violation and prevent recurrence.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 20: Notification of Recycled & Source Reduced Material Usage

Policy

Suppliers of packaging materials to Kraft Foods shall have a system in place to track any products that contain recycled materials or have been source-reduced. Suppliers shall notify Kraft Foods when recycled content or source-reduced packaging materials are provided.

Definitions

Recycled Material

A pre- or post-consumer use material that has been treated, salvaged, refurbished or otherwise reworked for re-use.

Source-reduced

Decreasing the amount of the packaging materials being used. For this purpose, it can be accomplished by reusable packaging, refillable packaging, lightweighting, or material substitution resulting in decreased packaging.

Requirements

The Kraft Foods contracting representative shall be advised that recycled and/or source-reduced materials are being used in the production of packaging products produced for Kraft Foods. The supplier shall be responsible for ascertaining the Food Additive status of the recycled materials.

The Kraft Foods contracting representative shall be advised prior to any reformation, change of suppliers, or other action bearing on the use of recycled or source-reduced materials for products purchased by or for Kraft Foods.

Training

Employees, purchasing agents, quality personnel and others who may make decisions regarding the use of recycled or source-reduced material shall be trained to be aware of any special limitations associated with the use of such material.

Employees shall be trained on the disposition of reject material that does not meet specifications. Training of personnel shall be documented.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records shall be available for review during audits or inspections by Kraft Foods quality auditors.

Chapter 21: Transportation & Storage Requirements

Policy

Suppliers, comanufacturers, warehousing and shipping companies of products for Kraft, shall have systems in place to preclude potential exposure of products for Kraft to unsanitary conditions, harmful chemicals, or other potential sources of contamination that could render the products unfit for food or food use.

Definitions

Products

Products include ingredients, packaging materials and finished or intermediate stages of foods owned by Kraft Foods, sold to Kraft Foods, or intended for delivery to a Kraft Foods facility or consumer trade channels under a Kraft Foods contract or to a comanufacturer of Kraft products.

Suitable Facility

A facility in which the design, layout, utilities and maintenance meet all Good Manufacturing Practices (GMPs) and industry standards, and does not pose any food safety or other risks to Kraft Food products.

Appropriate Equipment

Transportation equipment that conforms to regulatory and industry standards. Equipment must be of a sanitary design and maintained in good condition to prevent exposure of products in transit to elemental, pest, or other contamination.

Bulk Material Transport

Includes, but is not limited to tanker trucks, railroad tank cars, railroad hopper cars, railroad "Big John" cars and other material conveyances used to transport products unpackaged in bulk.

Requirements

Facilities used to handle or store products shall be of suitable and appropriate design for the holding and storage of food products. Facilities shall be maintained to preclude potential contamination or exposure of products to outside elements, pests, hazardous materials, microbial contamination or sources of extraneous contamination.

Products required to be refrigerated shall be kept at temperatures between 34°F and 40°F., unless otherwise specified by government regulations or Kraft specifications. Frozen products shall be kept at temperatures below 0°F. Refrigerated and frozen storage area temperatures shall be monitored and documented at least daily. The refrigeration unit on transport vehicles shall be checked to ensure proper function and correct temperature settings prior to loading refrigerated products.

Documented inspection of transport vehicles for structural integrity, cleanliness, and overall suitability shall be conducted prior to loading products. Only tankers dedicated to food use shall be used to transport products for Kraft Foods. Documentation showing the previous products shipped shall be obtained and maintained. Verification documents of tanker cleaning shall be obtained and maintained.

Training

Suppliers and comanufacturers shall ensure that their employees or agents responsible for selection, inspection, loading, unloading, and acceptance of bulk transport conveyances receive the necessary training to ensure the suitability of such transport.

Corrective Action

Transport conveyances and vehicles not meeting standards of cleanliness, structural integrity or overall suitability shall be rejected until corrective actions bring the unit into full compliance. Corrective actions shall be documented.

Record Retention

Records shall be maintained for the shelf life of the product or ingredient, two years, or as required by product specifications, whichever is longer. All records shall be available for review during audits or inspections by Kraft quality auditors.

Chapter 22: Quality Auditor Access

Policy

Suppliers or comanufacturers of products or ingredients for Kraft Foods shall permit Kraft Foods quality auditors' access to facilities used to manufacture, pack or hold such products or ingredients.

Requirements

Kraft Foods quality auditors shall be authorized to enter and audit or inspect at reasonable times any establishment storing, supplying or comanufacturing products or ingredients for Kraft Foods. The audit or inspection of such facilities shall extend to all pertinent production areas including equipment, finished and unfinished materials, containers and labeling.

The audit or inspection may include review of records, processes, controls and facilities that demonstrate that products produced for Kraft Foods meet our expectations and specifications.

Limitations

An audit or inspection shall not extend to financial data, sales data (other than that directly related to Kraft Foods) or pricing data. Only personnel data pertaining to qualifications of technical and professional personnel performing functions pertinent to the audit shall be subject to review.

Notification of Audits

It is Kraft Foods policy to give advance notice of intent to conduct an audit or inspection. However, nothing in any contract shall deny the right of Kraft Foods to conduct unannounced audits by its own agents, or through firms or agencies that conduct audits under contract (ASI, AIB, USDA and others).

Recommended IPIA Standards for Manufacturing Ice to be Supplied to Entities under the Province of the US Army Veterinary Command

1. Either use a water source for manufacturing ice from: (a) a municipal or other source which has met all of the requirements of the EPA National Primary Drinking Water Regulations or, (b) a source which meets the standards stipulated by the EPA Safe Drinking Water Act, 42 USC, for untreated water sources (e.g., wells).
2. Comply with the Good Manufacturing Practices stipulated in 21 CFR 110, which are essentially the same as those stipulated in the PIQCS Program (July 1, 2001) of the IPIA.
3. Develop and implement a Hazard Analysis Critical Control Points (HACCP) Plan (21 CFR 120).
4. Develop and implement a Product Recall Plan that meets the standards stipulated in the IPIA Recall Guide.
5. Pass an annual verification audit of the manufacturing facility by the US Army Veterinary Command (see Appendix G, MIL-HDBK-3006) or an equivalent audit by a firm approved by the US Army Veterinary Command.
6. Perform verification analytical testing to meet the IPIA-PIQCS and the EPA minimum contamination levels (MCL) as follows

Test	Frequency
Total Coliform Bacteria (including fecal and <i>E.coli</i>)	Monthly
Heterotrophic Plate Count	Monthly
Heavy Metals	
? Chromium (total)	Annually
? Cadmium	Annually
? Lead	Annually
? Copper	Annually

Note: The above listed analytical tests are those in which there is a possibility that contamination could occur within the ice manufacturing process. These tests are required for verification that the PIQCS and HACCP Plans are being effectively implemented. All other analytical tests listed under the EPA National Primary Drinking Water Regulations for source water are adequately performed by the entity (e.g., municipal) responsible for supplying the source water to the ice manufacturing process. Thus, further testing would be redundant.

INFORMATION PAPER

Origin and Destination sampling Program

Recommendations: AR 40-657, Chapter # 5

Origin Program: Commercial Processing Facilities only

Directed by MACOM Veterinarian
CONUS (OCONUS commander can supplement the program)

- (1) Sample during Initial, Directed Routines, and Special Audits (Routines as needed).
- (2) Require all plants to have testing performed on required items at an independent lab.
- (3) Review laboratory results during audits.
- (4) Select samples during routine audits if their lab results reflect nonconforming items or trends.

For 2001, the most frequent causes of reported foodborne disease determined by CDC were: (1) Salmonella, (2) Campylobacter, (3) Shigella, (4) Cryptosporidium, (5) E. Coli 0157:H7, (6) Yersinia, (7) Listeria, (8) Vibrio, (9) Cyclospora. Need to also consider Norwalk virus.

PHFs to consider for the origin-sampling program are: 1. Poultry, 2. Beef, (esp ground beef), 3. Eggs, 4. Shellfish, 5. FF&V (esp spouts), 6. Ice; bottle water, 7. Juices, 8. RTE (esp sandwiches), 9. Dairy, (esp fz desserts), 10. Soft cheeses.

Call this audit sampling rather than origin sampling
Want to be very flexible in adjusting this list as science dictates.
Keep the option to perform origin sampling anytime circumstances calls for testing.

Destination sampling: (DOD facilities only)

Have OTSG work with contracting agencies (DSCP, DeCA, AAFES, and MWR) to include food safety attributes and pathogens spelled out in the contracts. (Micro requirements)

Require vendors to provide a COC for PHF and RTE foods.

Include Prime Vendor in the program.

Concentrate on the food items that present the most risk to our customers.

Have the quality standards spelled out in either the contracts, DeCA Directives, etc.

Select destination samples from military activities only.

Reduce sampling of vendor delivered items. (Perform on customer request or command directed.)

Pull samples of Directory exempt items (other federal agencies items) on occasion or when there is cause (customer complaints).

OCONUS destination sampling programs at the discretion of the MEDCOM commander.

Will spell out details of program in MEDCOM Reg 40-28.

FREC Meeting August 28-29 2002
Ft. Sam Houston
San Antonio, TX

Issue: Preparation of Fresh Fruits and Vegetables
(washing/sanitizing of raw produce)

By: Robert L. Odette R.S. REHS MSPH
Navy Environmental Health Center
Portsmouth, Va



References:

- (a) Food Quality Protection Act of 1996
- (b) 21 CFR 173.315 "Chemicals used in washing or to assist in the peeling of fruits and vegetables".
- (c) FDA 2001 Food Code 3-301.15 "Washing Fruits and Vegetables".
- (d) FDA 2001 Food Code 7-204.12 " Chemicals for Washing Fruits and Vegetables, Criteria
- (e) FDA "Guide to Minimize Microbial Food Safety Hazards For Fresh Fruits and Vegetables" October 26, 1998

Appendices:

- (a) NAVMED P-5010-1 Article 3-2.6 " Washing Fruits and Vegetables"
- (b) TB MED 530 Article 2-14 "Raw Fruits and Vegetables"
- (c) Air Force 1997 FDA Food Code 3-302.15(B) modification
- (d) TB MED 530 Draft Article 3-20 "Washing Fruits and Vegetables"

Background:

Pathogenic microorganisms and/or chemical contaminants associated with whole or fresh-cut produce can cause food-borne disease outbreaks. Thorough washing of fresh produce is critical to remove soil and other contaminants such as pesticides. In certain situations, an additional "sanitizing" chemical wash is recommended. A review of existing service directives indicates significant differences in field guidance regarding food preparation procedures for fresh fruit and produce. Appendices (a), (b), and (c) provide Navy, Army, and Air Force procedures in regards to washing fresh fruits and vegetables respectively. Appendix (d) is draft revision for reference (b). Unifying hazard critical control points for prevention of food-borne disease is making sure all produce is from approved sources and thoroughly washed and rinsed.

Discussion:

Federal regulatory oversight of antimicrobial chemicals used in food industry has been evolving. Both EPA and FDA have pertinent federal regulations. Reference (a) was enacted in an effort to provide new direction in public health protection. This law amended provisions of the two pesticide-related statutes: Federal Insecticide, Fungicide, and Rodenticide Act and the Federal Food, Drug, and Cosmetic Act. Regulatory implementation of this Act falls under EPA. However, EPA and FDA federal laws found in Title 40 and Title 21 respectively appear fragmented. According to EPA officials there is no EPA approved/listed direct food contact sanitizer. For processed foods EPA and FDA both have federal regulatory oversight.

Reference (b) provides FDA listing of secondary food additives chemical that may be used for chemically washing fruits and vegetables. This listing provides chemicals that are GRAS, generally recognized as safe secondary food additives. References (c) and (d) provide applicable FDA Food Code guidance regarding washing of fruits and vegetables. Sodium hypochlorite is widely accepted for chemically washing fruits and vegetables. As a side note, Disinfectant, Food Service (chlorine – iodine type) with NSN 6840-00-810-6396 contains potassium iodide (28.6%), trichloromelamine (19.3%) and inert (52.1%) as the ingredients for this chemical. Potassium iodide is not listed in reference (b). S.C. Johnson manufactures this product exclusively for the military.

Washing of Fruits and Vegetables

Agency	Methods	When
Navy	* 15 minutes/100ppm FAC * 30 minutes/50ppm FAC * approved disinfectant * 6840-00-810-6396	Uncertain origin & those purchased in foreign countries
Army	* 30 minutes/200ppm * 1 minute/ 160 deg. F. * 6840-00-810-6396	Suspected of being contaminated
Army (draft revision)	* 30 seconds/50ppm FAC * 30 seconds/100 ppm total * approved disinfectant * 6840-00-810-6396	Before being cut, combined with other ingredients, cooked, served, or offered for human consumption
Army (draft revision)	* 30 minutes/200ppm FAC * 30 min./160 F. * 6840-00-810-6396	Emergency approval by IMA where night soil used as fertilizer
Air Force (adaptation of 1997 FDA Food Code)	30 seconds/50ppm cl. sol.	Suspected of being contaminated
FDA (ref. e)	1-2 minutes / 50 – 200 ppm total cl. /pH of 6.0 – 7.5	Prevention preferred over corrective action ----- may reduce microbial load on surface of produce

Summary :

Provided for informational purposes. Do not have any recommendations for FREC
Committee action .