THE EMERGENCY FOOD ASSISTANCE PROGRAM

POLICY AND PROCEDURES MANUAL

STORAGE AND WAREHOUSING

A. Introduction

This Section establishes procedures for food banks, food pantries, soup kitchens, homeless shelters, domestic violence shelters, Kids Cafes and other organizations receiving TEFAP foods in the handling and storage of USDA foods. In this Section the terms “dry food storage area” or “storeroom” apply to any dry food storage facility where foods are received and stored until distributed/used. The term “refrigerated food storage” applies to both normal refrigeration and freezer or frozen food storage. Good storage facilities - both dry and refrigerated - help keep foods safe, wholesome and appetizing. In many instances, food losses from deterioration and infestation are the result of inadequate storage facilities, undesirable handling practices and other conditions. These can be corrected by following the preventive and control measures outlined in this Section. Careful consideration must be given to providing proper storage facilities to insure that all foods will maintain their high quality and nutritive value until consumed. Temperature, humidity, ventilation, rodents and insects must be controlled throughout the storage period.

Food banks, food pantries, soup kitchens, etc. which accept TEFAP foods also accept responsibility to handle and store them properly. Failure to do so may result in the State Agency withholding further donations of foods and/or requiring restitution for foods that are lost, stolen or become spoiled.

B. Dry Food Storage Area

The dry food storage area provides orderly storage for food not requiring refrigeration. It should also protect foods from the elements, fire, insects, rodents, organisms, other causes of spoilage and from theft.

1. Location of Storeroom

At the food pantry, the dry storage area should ideally be near the distribution point. In warehouses, it should be adjacent to the staging area and convenient to receiving. All three storage areas (dry, refrigerated and frozen) should be on the same floor level to minimize handling and maintain security.

USDA foods should be stored away from cleaning equipment and non-food items, such as; chemicals, gasoline, oils, etc.

2. General Construction Features

(a) Floors should be level with surrounding areas for ease in handling and receiving USDA foods.

(b) It is preferable that the walls and ceiling be of light colors.

(c) A heavy-duty door is needed, at least 36 - 40 inches wide. The door should lock from the outside but should always open from the inside without a key.

(d) Windows should be equipped with security-type sash and screens painted opaque to protect foods from direct sunlight.

(e) Good lighting in the storage area makes it easier for staff to locate foods, eases the job of accurately checking paperwork associated with recordkeeping and contributes to better housekeeping by staff. When the light is fairly uniform throughout the storeroom, it is easier to see areas that require cleaning. Experience shows that employees will keep working areas cleaner and neater under these conditions.

(f) Lighting and wiring must comply with National Electric Code requirements (an American standard) and with any other local requirements. In order to provide adequate lighting for the storage area, illumination levels of approximately 15 foot candles are desirable. This is normally achieved by about 2 to 3 watts per square foot of floor area. For best distribution of light, fixtures should be centered over each aisle.

3. Ventilating Systems

Good ventilation in the dry food storage area is essential to proper storage of any type of food. By helping to control the temperature and lower the humidity, ventilation retards growth of various types of bacteria and molds, prevents mustiness and rusting of metal containers, and minimizes caking of ground or powdered foods.

(a) Mechanical or forced-air ventilation, with intake and/or exhaust fans, keeps fresh air circulating.

(b) The storeroom should be free of uninsulated steam and hot water pipes, water heaters, refrigeration condensing units or other heat producing devices.

(c) In hot, humid climates where the recommended temperatures and humidity levels cannot be maintained by natural or mechanical ventilation, it may be necessary to install artificial refrigeration to keep the temperature from going over 70 degrees Fahrenheit. Where

artificial refrigeration cannot be provided, a dehumidifier will be of some help.

(d) An oscillating fan may be of some help. Generally four air changes per hour will be adequate. During the winter months, it may be necessary to use heating equipment to keep certain foods from freezing.

4. Temperatures of 50 to 70 degrees Fahrenheit are recommended for the dry food storage area. During winter and some spring and fall months, it may be possible to maintain temperatures between 40 to 45 degrees Fahrenheit. This is desirable for foods normally kept in the dry food storage area.

5. Thermometers

Wherever foods are stored, a reliable thermometer is essential to make sure that proper temperatures are maintained to prevent spoilage and deterioration. Take thermometer readings at least once a day, and more frequently if there is difficulty in maintaining the desired temperature. When necessary, corrective measures should be taken to lower or raise temperatures.

Wall thermometers are suitable for the dry food storage area.

(a) Some of the characteristics of a good wall thermometer are: overall length of at least 12 inches, mounting holes at top and bottom, a temperature range of -30 degrees Fahrenheit to 120 degrees Fahrenheit in 2 degree scale divisions, a red-liquid-filled or mercury-filled magnifying glass tube for easy reading, a rust-resistant scale and thermometer bulb and tube fully protected by side flanges on the frame to minimize breakage.

(b) Mount the thermometer where it will provide the most accurate reading and where there is less danger of breakage from bumping and at about eye level for easy reading. It should not be mounted on the door, near a bulb or in a recessed area.

6. Aisle Space

Aisles for movement of trucks, skids, dollies and portable platforms should be 42 inches wide as a minimum.

7. Storeroom Equipment

Portable equipment is needed for efficient handling and storing of USDA foods. The volume and kinds of foods to be handled determine the types of equipment. In addition to the two-wheel and four-wheel hand trucks, it may be desirable to provide skids and dollies.

C. Refrigerated Food Storage Area

1. Two types of refrigerated storage space are needed:

   (a) Normal refrigeration maintained at a temperature of 36 to 40 degrees Fahrenheit.

   (b) Freezer or frozen food storage maintained at -10 to 0 degrees Fahrenheit.

   (c) Refrigerated storage space can be any artificially cooled, properly insulated area where the desired temperature and humidity can be maintained by the use of refrigeration units. If standard refrigeration facilities are limited, it may be desirable to partition off and insulate a section of the dry food storage area and to install an air-conditioning unit. If this is not practical, a separate room may be used for this purpose. Humidity in refrigerated storage areas may range from 65 to 95 percent, depending on the requirements of the food.

2. If the refrigerated space at the distribution site is limited, it may occasionally be necessary to rent space in a public warehouse or some other facility where refrigeration is provided.

3. Temperature requirements for most foods can be found on the FNS Food Distribution Programs website at: http://www.fns.usda.gov/tefap/tefap-usda-foods

D. Management Practices

1. Stack foods on pallets, dunnage or skids in alternating layers. This makes a stable load for storing and handling and allows for ease in taking a physical count.

2. Stack foods of a kind together. Arrange the foods in the storage space according to kind and packaging to facilitate accounting for TEFAP foods.

3. Food items should be date stamped or numbered for easy identification. This will provide a record so that the foods will be used on a “first-in/first-out” basis.

4. Oldest stocks shall be placed out front to assure the use of the foods on a “first-in/first-out” basis.

5. Store foods away from walls and off the floor. This keeps them from absorbing moisture that will cause cans to rust, package seams to burst and foods to mold or rot.

E. Housekeeping Practices

1. Importance of Sanitation and Cleanliness

Good housekeeping practices should be followed daily to insure cleanliness and orderliness in all food storage areas. Sanitation and cleanliness are a must in food handling and storage.

2. Care of Dry Storage Facilities

To keep the dry food storage area in good condition, foods must be checked regularly and cleaning schedules established and followed.

(a) Check all food frequently for evidence of spoilage such as bulging and leaking containers. Where spoilage has occurred, remove the food immediately and clean the area thoroughly to prevent contamination of other foods.

(b) Inspect for damage such as torn sacks and broken cartons. If the food is in good condition, distribute it immediately or repackage it and use as soon as possible. All empty containers and sacks should be removed from the storeroom.

(c) The storage area floors should be swept daily and mopped at least once a week. For sweeping floors, nonpungent sweeping compounds are recommended. If these are not available, the floor should be lightly sprinkled with water before sweeping. Skids or dollies on which foods are stored should be removed as needed to permit thorough cleaning of the floors. The walls, shelves, skids, or dollies, etc. should also be cleaned and washed regularly. Any foods dropped or spilled on the floor should be cleaned up immediately to prevent rodent and insect infestation.

3. Insect and Rodent Control

Insects destroy and render unfit for human consumption enormous quantities of food each year. The following types of foods are susceptible to insect infestation:

Cornmeal
Flour
Rice
Nonfat dry milk
Raisins

(a) There are many ways in which insect infestation may occur in the storage area. Insects or insect eggs may be harbored in floor cracks, baseboards, or in storeroom walls, in freight cars and trucks in which

foods are transported. Insect infestation is evidenced by the presence of webbing, beetles, moths, larvae, holes in grain or partly consumed foods. Since insects are seldom found on the outside of containers, it may be necessary to inspect the inside of bags and cases. In bagged foods, insects are usually found in the crease of the bags, along seams, or in the ears of the bags. In cased foods, they may be found in the dark, closed sections of the boxes. It may be necessary to examine several bags or cases of foods before any infestation is noticed.

(b) Insect infestation may occur even under ideal storage conditions; therefore, constant vigilance must be maintained for any sign of infestation, particularly during warm weather. Insect infestation of foods such as cornmeal, flour, rice and nonfat dry milk can be prevented by keeping these foods stored at 50 degrees Fahrenheit.

(c) Rodents also destroy or render unfit for human consumption enormous quantities of food each year. They are carriers and transmitters of diseases such as typhoid fever, cholera, tuberculosis, bubonic plague and rabies. Rodents enter buildings through holes or openings around pipes and wires and they frequently burrow under floors and enter through ventilation and drain pipes. Therefore, all such openings need to be covered or sealed with ¼ inch-mesh galvanized hardware cloth or sheet metal. All fan and ventilation openings, doors and windows require screens.

(d) The most effective ways of eliminating and controlling both rodents and insects are by extermination and fumigation. Both of these services can be rendered by a reputable licensed company. However, the services of such a company should not be relied upon completely. It is also important to have an organized program of good housekeeping with a designated responsible employee in charge.

(e) Any contracts made with fumigating companies should contain a statement to the effect that the contractor will comply with all federal, State and local laws and regulations and that proper aeration of the building will be accomplished after fumigation. The improper use of some fumigants may result in an explosion or a fire, or in ill effects to workers from exposure to the chemicals used. Therefore, a fumigating company must show evidence of public liability, property and fire insurance and workmen’s compensation. Since it is possible that the first fumigation will not effect a complete kill and may have to be followed with a second fumigation, a 100-percent-kill guarantee should be included in any contract entered into with a fumigating company. Poisons are dangerous to use around food items and must be used only by experienced and trained exterminators.

4. Care of Refrigerated Food Storage Facilities

All refrigeration equipment needs to be checked frequently to see that it is kept in good condition. It is important to retain a reliable serviceman for periodic service and cleaning of all compressors, condensers and motors. Cleaning schedules should be posted and followed for the checking and cleaning of all refrigeration equipment.

6. For Additional Information Regarding Storage of USDA Foods

Refer to "TEFAP Foods Fact Sheets with Recipes" at the USDA/FNS/Food Distribution Programs Internet website: http://www.fns.usda.gov/fdd/programs/tefap/cfs_tefap.htm.