

**Managing Food Safety:**

A HACCP Principles Guide for Operators of Food Establishments at the Retail Level

# HACCP

## The Process Approach

**THE FLOW OF FOOD**

The flow of food, which is the path that food follows from receiving through serving, is important for determining where potentially significant food safety hazards may occur. At each operational step in the flow, active management of food preparation and processes is an essential part of business operations. With a HACCP [Hazard Analysis and Critical Control Point] system, you set up control measures to protect food at each stage in the process.

The illustrations of food processes listed below are not intended to be all inclusive. For instance, quick-service, full-service, and institutional providers are major types of food service operations. Each of these has its own individual food safety processes. These processes are likely to be different from a deli in a retail food store.

Some operations may have all three types of processes or variations of the three. Identifying the food process flows specific to your operation is an important part of providing a framework for developing a food safety management system.

**FOOD PROCESS WITH NO COOK STEP**

RECEIVE—STORE—PREPARE—HOLD—SERVE

The important feature of this type of process is the absence of a cooking step. Heating foods destroys bacteria, parasites, and viruses, and is often a CCP [Critical Control Point]. But since this particular food flow does not include cooking, there is no step that will eliminate or kill bacteria, parasites, or viruses. An example is tuna salad that is prepared and served cold.

Control in this process will focus on preventing:

- bacterial growth (e.g., storage under refrigeration),
- contamination from employees (e.g., restriction of employees ill with diarrhea, proper handwashing, preventing bare hand contact with ready-to-eat foods, etc.),
- cross-contamination from other foods (e.g., raw to ready-to-eat),
- cross-contamination from soiled equipment (e.g., cleaning and sanitizing),
- obtaining foods from approved sources (e.g., a supplier of raw fish for sushi who adequately freezes fish to control parasites).

You should also think about some other factors.

- Are there any ingredients or menu items of special concern, such as steak tartare, duck, sushi, reef fish, oysters, hollandaise sauce, sprouts, raspberries or apple cider?
- Is this a potentially hazardous food requiring specific temperature controls?
- How will it be served? Immediately? On a buffet?

- Does this food have a history of being associated with illnesses?
- Will this require a great deal of preparation, making preparation time, employee health, and bare hand contact with ready-to-eat food a special concern?
- How will an employee ill with diarrhea be restricted from working with food?
- Are you serving food to a population that is known to be highly susceptible to foodborne illness (e.g., residents of health care facilities, persons in child or adult day care facilities, etc.)?

## **FOOD PREPARATION FOR SAME DAY SERVICE**

RECEIVE—STORE—PREPARE—COOK—HOLD—SERVE

In this process, a food is prepared and served the same day. The food will be cooked and held hot until service, such as chili. Generally, the food will pass through the temperature danger zone only once before it is served to the customer, thus minimizing the opportunity for bacterial growth.

The preparation step may involve several processes, including thawing a frozen food, mixing in other ingredients, or cutting or chopping. It is important to remember that added ingredients may introduce additional contaminants to the food. Cutting or chopping must be done carefully so that cross contamination from cutting boards, utensils, aprons, or hands does not occur. Control points at this operational step include good sanitation and handwashing.

During cooking, food will be subjected to hot temperatures that will kill most harmful bacteria, parasites, and viruses that might be introduced before cooking, making cooking a CCP. It is the operational step where raw animal foods are made safe to eat, and therefore, time and temperature measurement is very important. Temperature of foods during hot holding must be maintained until service so that harmful bacteria do not survive and grow.

## **COMPLEX PROCESSES**

RECEIVE—STORE—PREPARE—COOK—COOL—REHEAT—HOT HOLD—SERVE

Failure to adequately control food product temperature is the one factor most commonly associated with foodborne illness. Foods prepared in large volumes or in advance for next day service usually follow an extended process flow. These foods are likely to pass through the temperature danger zone several times. The key in managing the operational steps within the process is to minimize the time foods are at unsafe temperatures.

In some cases, a variety of foods and ingredients that require extensive employee product preparation may be part of the process. A sound food safety management system will incorporate SOPs [Standard Operating Procedures] for personal hygiene and cross contamination prevention throughout the flow of the food.

Before you set up a management system for your operational steps, there are several factors you should consider. Multiple step processes require proper equipment and facilities. Your equipment needs to be designed to handle the volume of food you plan to prepare. For example, if you use a process that requires the cooling of hot food, you must provide equipment that will adequately and efficiently lower the food temperature as quickly as possible. If you find that a recipe is too hard to safely prepare, you may want to consider purchasing pre-prepared items from a reputable source.