

## **Maryland Department of Health and Mental Hygiene** **Guidelines for Submitting Hazard Analysis Critical Control Point (HACCP) Plans**

Maryland Health-General Code Annotated and the Code of Maryland Regulations (COMAR) require that plans and specifications be submitted to the local health department when anyone proposes to construct a food establishment, remodel or alter a food establishment, or significantly change/add menu items. The minimum information provided must include the plans and specifications of the building and food equipment and any other information required by the local health department. A plan must be submitted that identifies foods received, processed or manufactured and the food handling and preparation procedures, as well as employee training procedures, in order to assess proper identification of potential hazards. A plan with this information is called a HACCP plan. HACCP plans are required for all facilities that are classified as MODERATE or HIGH priority facilities.

This guideline is intended to help you in providing the required HACCP plans.

### **INFORMATION NECESSARY:**

1. Menu or list of foods served: Provide a copy of the menu or a list of foods that will be prepared and served to the public.
2. Food Service System: Specify the types of food service systems you will use. They include: Cook-Serve; Cook-Hot Hold-Serve; Cook-Chill-Reheat-Hot Hold-Serve...etc.
3. Number of meals prepared: Estimate the number of meals served on average daily.
4. Population served: Specify what groups of people you serve. Those most at risk are children, the elderly, immunocompromised, pregnant and hospitalized people.

### **GENERAL FOOD PREPARATION INFORMATION:**

1. Describe how you will insure that foods received are from an approved source and at correct temperature upon receipt.
2. Specify how raw meats, poultry, seafood and produce will be stored.
3. Specify the three ways to properly thaw frozen food.
4. Specify at least three ways for properly chilling and storing hot foods and the time/temperature requirements for food during the cooling process.
5. List the categories of food that will be prepared more than 12 hours in advance of serving.
6. Specify how the ingredients for cold ready-to-eat foods will be pre-chilled and mixed so as to maintain proper temperatures.
7. Specify whether any prepared foods are distributed off-premises and how temperatures will be maintained in transit.
8. Specify which foods are in reduced oxygen packaging.

### **HACCP PLAN INFORMATION:**

1. For menu items identified as potentially being involved in food-borne illnesses, a HACCP plan must be submitted and approved by the Health Department. The HACCP plans should then be available to all kitchen personnel.

- An integral part of preparing HACCP plans is analysis of how menu items are prepared. The most important steps to insure food safety, known as Critical Control Points (CCPs) must be identified on the HACCP plan. For each CCP, a potential hazard can be avoided by properly completing an activity. The activity often has a measurable component or limit that can be monitored. CCPs generally include thawing, cooking, chilling, reheating, hot-holding or cold-holding. The ways in which the CCPs are monitored must be described on the HACCP plan form. If the activity at the CCP is not completed properly due to employee error, equipment malfunction, etc, a corrective action is necessary. The corrective action must be specified on the HACCP plan form. See the following example:

A 20-lb roast beef has been cooking overnight in a low temperature oven which automatically cycles to a hot-holding mode. During the night, the electrical power cut off for 6 hours, then came back on.

- How do you know the power has been off?
- What will you do with the roast?

The cook makes a mistake when he reheats the chicken noodle soup that was made yesterday. He warmed it to 120<sup>0</sup> F then put it on the steam table.

- What will you do with the soup?

- Provide drawings or other information that shows the arrangement of work areas, traffic flow patterns and food service systems and how they are coordinated to minimize possible contamination or mishandling of food.
- The equipment used for each CCP must be identified on the HACCP plan.
- Submit a written procedure for training food service personnel on the information contained in the HACCP plan.

### **Foods Frequently Identified as Vehicles of Foodborne Illnesses**

MEAT	Roast Beef, Ham, Pork, Beef Gravies, Beef stew/soup/chili
POULTRY	Turkey, Chicken, Stuffings Gravies
SEAFOOD	Raw oysters, raw or undercooked fish or crustacea, temperature abuse of seafood
UNPASTEURIZED EGGS	Raw eggs, eggs "over easy", meringues, homemade mayonnaise or ice cream, eggs benedict, egg salads,
SOUP & GRAVY	Any made from meat, poultry, pork, eggs
CHINESE FOOD	Rice, Egg Rolls, Undercooked meat
MEXICAN FOOD	Rice, Beans, Ground meat fillings
COMBINATION SALADS	Potato, chicken, tuna, egg, macaroni
RICE	Undercooked or improperly held rice or other grains

# HAZARD ANALYSIS CRITICAL CONTROL POINTS

HACCP stands for Hazard Analysis Critical Control Points. It is a method of controlling foodborne illnesses by focusing on how potentially hazardous foods are stored, cooked, reheated and held prior to being served.

A Critical Control Point (CCP) is a step in the preparation of a recipe that must be done properly to insure that bacteria in food is at an acceptable level for human consumption.

Examples of CCPs are:

- Reaching proper cooking temperatures
- Cooling foods rapidly
- Reheating foods rapidly to 165<sup>0</sup> F
- Holding foods below 45<sup>0</sup> F or above 140<sup>0</sup> F

The following is a list of required temperatures for some common foods:

Roast Beef	140 <sup>0</sup> F
Pork and Ham	155 <sup>0</sup>
Ground Beef	155 <sup>0</sup>
Poultry	165 <sup>0</sup>
Stuffed Meats	165 <sup>0</sup>
All Others	145 <sup>0</sup>

**Use accurately calibrated thermometers for monitoring food temperatures.**

**Cool** foods that are prepared in advance or leftovers rapidly: from 120<sup>0</sup> F to 70<sup>0</sup> F within 2 hours and to below 45<sup>0</sup> F within an additional 2 hours. This can be done by:

- Refrigerating food in shallow pans (less than 4 inches deep)
- Using an ice bath with frequent stirring and/or ice paddles

**Pre-chill** all ingredients of a cold salad to less than 45<sup>0</sup> F before combining them. This includes: potato, tuna, shrimp, egg, crab, ham, chicken, turkey salads.

**Wash hands** thoroughly with warm soapy water and dry them before starting a new task, after handling raw foods and always after restroom visits.

**Prevent cross-contamination** by using separate cutting boards and utensils, or at least sanitizing them between uses. Store cooked foods above raw foods.

**Cold food** must be held at 45<sup>0</sup> F or below at all times during storage, food preparation, display, and transport. Pasteurized crab meat must be held at 38<sup>0</sup> F or less. If the temperature exceeds 45<sup>0</sup> F for more than 2 hours, or 55<sup>0</sup> F at any time, the food must be discarded as garbage.

**Hot food** must be held at 140<sup>0</sup> F or above at all times during preparation, display, transport and hot-holding.

Example 1

HACCP Plans

**Facility:** Joe’s Subs

**Preparer:** Joe Smith

**Date:** 1/1/01

**Food Item:** Roast Beef Sub

**Health Department Review: Name:**

**Date:**

**Flow Diagram or descriptive narrative of the food preparation steps for this item:**

Receive frozen >> thaw >> cook >> hot hold >> slice >> serve >> discard

CCP1      CCP2

/

Discard << serve << slice << reheat << cool

CCP4      CCP3

**HACCP Chart**

<b>Critical Control Points (CCPs)</b>	<b>Monitoring Procedures</b>	<b>Corrective Action(s)</b>
1. COOK to internal temp of 140°F for a minimum of 3 minutes.	Check temp of beef’s center with sanitized & calibrated metal stem-type thermometer	Continue to cook until proper temp is reached
2. HOT HOLD at 140°F for no longer than 4 hours.	Check internal temp of product every hour	If temp is less than 140°F for more than 1 hour, discard, otherwise, rapidly reheat to 165°F for 15 seconds.
3. COOL so that internal temp reaches less than 70°F in 2 hours and less than 45°F in another 2 hours	Check the internal temp at 1 hour intervals with metal stem type thermometer	Discard Product
4. REHEAT to internal temp of 165°F for at least 15 seconds	Check internal temp with metal stem thermometer	Discard product if 165°F is not reached within 2 hours

**Equipment utilized at each CCP (include type and quantity of each unit)**

**CCP 1:** Convection oven

**CCP 2:** Heat lamps (2)

**CCP 3:** Walk-in Refrigerator

**CCP 4:** Convection Oven

Example 2

HACCP Plans

**Facility:** Joe’s Subs

**Preparer:** Joe Smith

**Date:** 1/1/01

**Food Item:** Potato Salad

**Health Department Review: Name:**

**Date:**

**Flow Diagram or descriptive narrative of the food preparation steps for this item:**

Cook >> Cool >> Cube  
                   CCP1            \ Mix >>> re-chill >>> Cold Hold >>> Serve  
 Pre-chill all ingredients / CCP2                                    CCP3

**HACCP Chart**

<b>Critical Control Points (CCPs)</b>	<b>Monitoring Procedures</b>	<b>Corrective Action(s)</b>
1. COOL to internal temp of 70 <sup>0</sup> F or less within 2 hours and 45 <sup>0</sup> F or less in another 2 hours	Check temp with sanitized & calibrated metal stem-type thermometer hourly	Discard
2. Mix all pre-chilled ingredients using proper hygienic practices and sanitized utensils	Check temps often and evaluate mixing procedures	Rechill rapidly if food reaches more than 45 <sup>0</sup> F for 1 hour or discard is food reaches 45 <sup>0</sup> F for more than 1 hour.
3. Cold-Hold and Store at less than 45 <sup>0</sup> F	Check internal temp regularly will displayed and before serving	Discard is temp reaches 45 <sup>0</sup> F or more for more than 2 hours.

**Equipment utilized at each CCP (include type and quantity of each unit)**

**CCP 1:** Walk-in Refrigerator

**CCP 2:** N/A

**CCP 3:** Walk-in, Reach-in, Display case, or Salad Bar

## *HACCP Program – Menu Manual*

### **RICE**

Cook	Heat to a minimum of 140 <sup>0</sup> F
Hot Hold	Hold at least 140 <sup>0</sup> F
Cool	Cool from 120 <sup>0</sup> F to 70 <sup>0</sup> F within 2 hours and from 70 <sup>0</sup> F to less than 45 <sup>0</sup> F within an additional 4 hours. Cool by: refrigeration in pans less than 4 inches deep or ice baths
Reheat	Reheat rapidly to at least 165 <sup>0</sup> F for at least 15 seconds
Hot Hold	Hold at least at 140 <sup>0</sup> F

### **EGGS (cooked)**

Receive and Store	Eggs must be 45 <sup>0</sup> F or less at all times
Cook	Heat to a minimum of 140 <sup>0</sup> F . Raw eggs are sources of Salmonella poisoning. They must be cooked to a minimum temperature of 140 <sup>0</sup> F. Raw eggs should never be “pooled” when large quantities are called for in recipes. Used pasteurized eggs in recipes and for serving at-risk populations.
Hot Hold	Hold at least at 140 <sup>0</sup> F for 2 hours maximum
Cool	Cool from 120 <sup>0</sup> F to 70 <sup>0</sup> F within 2 hours and from 70 <sup>0</sup> F to less than 45 <sup>0</sup> F within an additional 4 hours. Cool by: refrigeration in pans less than 4 inches deep or ice baths
Reheat	Reheat rapidly to at least 165 <sup>0</sup> F for at least 15 seconds
Hot Hold	Hold at least at 140 <sup>0</sup> F for 2 hours maximum

### **CHILI and THICK SOUPS**

Receive and Store	Receive and store products at 45 <sup>0</sup> F or less at all times
Thaw	Thaw in refrigerator, under cool running water, or as part of the cooking process
Cook	Heat to a minimum of 140 <sup>0</sup> F
Hot Hold	Hold at least 140 <sup>0</sup> F
Cool	Cool from 120 <sup>0</sup> F to 70 <sup>0</sup> F within 2 hours and from 70 <sup>0</sup> F to less than 45 <sup>0</sup> F within an additional 4 hours. Cool by: refrigeration in pans less than 4 inches deep or ice baths. Containers should be left uncovered until product reaches 45 <sup>0</sup> F. Large portions should be divided into smaller containers.
Reheat	Reheat rapidly to at least 165 <sup>0</sup> F for at least 15 seconds
Hot Hold	Hold at least at 140 <sup>0</sup> F

### **ROAST BEEF**

Receive and Store	Receive and store products at 45 <sup>0</sup> F or less at all times
Thaw	Thaw in refrigerator, under cool running water, or as part of the cooking process
Cook	Heat to a minimum of 140 <sup>0</sup> F (Rare roast beef is allowed at 130 <sup>0</sup> F if temp is maintained for 4 hours)
Hot Hold	Hold at least 140 <sup>0</sup> F
Cool	Cool from 120 <sup>0</sup> F to 70 <sup>0</sup> F within 2 hours and from 70 <sup>0</sup> F to less than 45 <sup>0</sup> F within an additional 4 hours. Cool by: refrigeration in pans less than 4 inches deep or ice baths. Containers should be left uncovered until product reaches 45 <sup>0</sup> F. Large portions should be divided into smaller cuts.
Reheat	Reheat rapidly to at least 165 <sup>0</sup> F for at least 15 seconds
Hot Hold	Hold at least at 140 <sup>0</sup> F

**COLD SALADS (Meat, Poultry, Seafood, Potato, Egg)**

Receive and Store	Receive and store products at 45 <sup>0</sup> F or less at all times
Thaw	Thaw in refrigerator, under cool running water, or as part of the cooking process
Cook	Cook to the minimum appropriate temperature for each category: Poultry - 165 <sup>0</sup> F    Beef – 140 <sup>0</sup> F Seafood - 140 <sup>0</sup> F    Pork - 150 <sup>0</sup> F Mayonnaise or salad dressing must be a commercially prepared pasteurized product and pre-chilled to 45 <sup>0</sup> F or less. Pre-chill all other ingredients also (onion, celery, etc). Seasonings do not need to be pre-chilled
Mix	Use clean hands, utensils and containers. Mix rapidly to maintain temperatures at 45 <sup>0</sup> F or less.
Cold Hold & Store	Cold hold and store product as less than 45 <sup>0</sup> F.

**POULTRY**

Receive and Store	Receive and store products at 45 <sup>0</sup> F or less at all times
Thaw	Thaw in refrigerator, under cool running water, or as part of the cooking process
Cook	Heat to a minimum of 165 <sup>0</sup> F (Fried Chicken pieces may be pre-breaded and stored cold)
Hot Hold	Hold at least 140 <sup>0</sup> F
Cool	Cool from 120 <sup>0</sup> F to 70 <sup>0</sup> F within 2 hours and from 70 <sup>0</sup> F to less than 45 <sup>0</sup> F within an additional 4 hours. Cool by: refrigeration in pans less than 4 inches deep or ice baths. Containers should be left uncovered until product reaches 45 <sup>0</sup> F.
Reheat	Reheat rapidly to at least 165 <sup>0</sup> F for at least 15 seconds
Hot Hold	Hold at least at 140 <sup>0</sup> F

## THIN SOUPS

Receive and Store	Receive and store products at 45 <sup>0</sup> F or less at all times
Thaw	Thaw in refrigerator, under cool running water, or as part of the cooking process
Cook	Cook to a minimum of 140 <sup>0</sup> F
Hot Hold	Hold at least 140 <sup>0</sup> F
Cool	Cool from 120 <sup>0</sup> F to 70 <sup>0</sup> F within 2 hours and from 70 <sup>0</sup> F to less than 45 <sup>0</sup> F within an additional 4 hours. Cool by: refrigeration in pans less than 4 inches deep or ice baths. Containers should be left uncovered until product reaches 45 <sup>0</sup> F. Large portions should be divided into smaller containers.
Reheat	Reheat rapidly to at least 165 <sup>0</sup> F for at least 15 seconds
Hot Hold	Hold at least at 140 <sup>0</sup> F

## PORK

Receive and Store	Receive and store products at 45 <sup>0</sup> F or less at all times
Thaw	Thaw in refrigerator, under cool running water, or as part of the cooking process
Cook	Cook to a minimum of 155 <sup>0</sup> F
Hot Hold	Hold at least 140 <sup>0</sup> F
Cool	Cool from 120 <sup>0</sup> F to 70 <sup>0</sup> F within 2 hours and from 70 <sup>0</sup> F to less than 45 <sup>0</sup> F within an additional 4 hours. Cool by: refrigeration in pans less than 4 inches deep or ice baths. Containers should be left uncovered until product reaches 45 <sup>0</sup> F. Large portions should be divided into smaller cuts.
Reheat	Reheat rapidly to at least 165 <sup>0</sup> F for at least 15 seconds
Hot Hold	Hold at least at 140 <sup>0</sup> F