



HACCP: Process 3

Definitions:

Process 3 Foods: Foods that heated above 60°C (140°F) and cooled to 5°C (41°F) or below for service cold or cooled and reheated to 74°C (165°F) or above for hot service, in order to ensure that the foods are not hazardous to human health. Generally, this involves a food that requires cooking, cooling, and serving cold; or cooking, cooling, reheating, and serving hot.

Critical Control Point (CCP): A point, step, or procedure at which controls can be applied that are essential in preventing or eliminating a food safety hazard or reducing the hazard to an acceptable risk level.

Critical Limit (CL): The maximum or minimum value of a physical, biologic, or chemical parameter that is required to neutralize risk from an identified food safety hazard. These values can be obtained at critical control points.

- Critical limits for pathogen destruction during cooking, cooling, and reheating can be found on the following page and in sections 7.3.4.1, 7.3.4.3, and 7.3.5.2 of the *VSP Operations Manual 2005*. For more information about critical limits, refer to 7.3.4 through 7.3.5.3 of the *VSP Operations Manual 2005*. It can be found at <http://www.cdc.gov/nceh/vsp/operationsmanual/OPManual2005.pdf>.

Example:

For an example of a HACCP plan for a process 3 food recipe, see the “Bev’s Pasta Salad” recipe and flow diagram on pages 4 and 5.

Class Exercise:

1. Select a process 3 type food or recipe from your vessel’s recipe book. Keep in mind that process 3 foods and recipes pass through the danger zone 5°C (41°F)-60°C (140°F) two or more times prior to serving in order to ensure that the foods are not hazardous to human health.
2. Using the HACCP video as a guide, develop a HACCP flow diagram for the food or recipe that you have chosen.
 - Look at the “Bev’s Pasta Salad” flow diagram below for an example of a developed diagram.
3. Review each procedural step and ask, “Is this step a critical control point (CCP)?”
 - If the answer is no, proceed with standard operating procedures.

- If the answer is yes, identify and write the critical limit (CL).
- If your recipe requires reheating, remember to identify the critical limits for that step in your flow diagram.

7.3.4 Pathogen Destruction

7.3.4.1 Cooking Temperatures / Times

7.3.4.1.1 Raw animal foods, such as eggs, fish, meat, poultry, and foods containing these raw animal foods, shall be cooked to heat all parts of the food to the temperature and for the time specified below:

- (1) 63°C (145°F) or above for 15 seconds for raw shell eggs that are broken and prepared in response to consumers' orders and that are to be served immediately, and for fish, meat, and pork, including game animals commercially raised for food and game animals under a voluntary inspection program.
- (2) 68°C (155°F) for 15 seconds, or an equivalent temperature-time combination, for ratites, injected meats, and the following if they are comminuted: fish, meat, game animals commercially raised for food, and game animals under a voluntary inspection program; and for raw eggs that are prepared but not immediately served.
- (3) 74°C (165°F) or above for 15 seconds for poultry, wild game animals not specified in (2) above, stuffed fish, stuffed meat, stuffed pasta, stuffed poultry, stuffed ratites, or stuffing containing fish, meat, poultry, or ratites.
- (4) 63°C (145°F) or above for 15 seconds, or an equivalent temperature-time combination, for whole beef roasts, corned beef roasts, pork roasts, and cured pork roasts, such as ham, cooked in ovens operated in accordance with the specifications in Annex 13.6.

7.3.4.3 Reheating

7.3.4.3.1 *Properly cooked and refrigerated food that is prepared for immediate service in response to an individual consumer order, such as a roast beef sandwich au jus, may be served at any temperature.*

7.3.4.3.2 Potentially hazardous food that is cooked, cooled, and reheated for hot holding shall be reheated so that all parts of the food reach a temperature of at least 74°C (165°F) for 15 seconds.

7.3.4.3.3 If reheated in a microwave oven for hot holding, potentially hazardous food shall be reheated so that all parts of the food reach a temperature of at least 74°C (165°F). The food should be rotated or stirred, covered, and allowed to stand covered for 2 minutes after reheating.

- 7.3.4.3.4 Ready-to-eat, potentially hazardous food taken from a commercially processed, hermetically sealed container, or from an intact package from a food processing plant that is inspected by the food regulatory authority that has jurisdiction over the plant, shall be heated to a temperature of at least 60°C (140°F) for hot holding.
- 7.3.4.3.5** Reheating for hot holding shall be done rapidly at a temperature between 5°C (41°F) and 74°C (165°F); reheating to the proper temperature should not exceed 2 hours.
- 7.3.4.3.6 Potentially hazardous food may not be reheated more than once.
- 7.3.4.3.7 *Remaining unsliced portions of roasts of beef that are cooked on the vessel may be reheated for hot holding using the oven parameters and minimum time and temperature conditions used in the original cooking process.*

7.3.5.2 Food Cooling

- 7.3.5.2.1** Cooked potentially hazardous food shall be cooled
- (1) within 2 hours, from 60°C (140°F) to 21°C (70°F); and
 - (2) within 4 hours, from 21°C (70°F) to 5°C (41°F) or less.
- 7.3.5.2.2** Potentially hazardous food shall be cooled within 4 hours to 5°C (41°F) or less if prepared from ingredients at ambient temperature, such as reconstituted foods and canned tuna.
- 7.3.5.2.3** A potentially hazardous food received in compliance with laws allowing a temperature above 5°C (41°F) during shipment from the supplier shall be cooled within 4 hours to 5°C (41°F) or less.
- 7.3.5.2.4 *Shell eggs need not comply with the cooling time if the eggs are placed immediately upon their receipt in refrigerated equipment that is capable of maintaining food at 5°C (41°F) or less.*

Example:

Recipe: Bev's Pasta Salad

Ingredients:

10 oz rotini
1 head cauliflower
1 head broccoli
2 bunches green onions
8 oz fresh mushrooms
4 tomatoes
1 bottle (8 oz), fat free herbs and spices dressing

Directions: Cook rotini until al dente. Cool. Clean broccoli and cauliflower, then cut into florets. Dice green onions. Mix together with 2/3 of dressing. Marinate at least 4 hours. Just before serving, add sliced mushrooms, diced tomatoes, and remaining dressing. Mix and serve.

HACCP Flow Diagram

