MENUS AND RECIPES

## All schools participating in the School Nutrition Program must have a food safety program based on Process Hazard Analysis Critical Control Point (HACCP) principles. The food safety program must conform to the guidance document issued by the United States Department of Agriculture (USDA). Process HACCP is based on the proper sorting of standardized recipes and procedures, so this is the first step to proper implementation. The information in this section provides important guidance about organizing a complete and thorough recipe book.

## Step 1: List all menu items and collect recipes.

The first step in developing a HACCP Plan is to prepare a list of all menu items, including those for à la carte items, breakfast, lunch, Fresh Fruit and Vegetable Program, and After School Snack Program. All foods prepared and/or served in the school nutrition operation must comply with the HACCP Plan. For each menu item listed, there must be a corresponding standardized recipe or standardized procedure.

* **STANDARDIZED QUANTITY RECIPE** – required for all breakfast, lunch, and After School Snack Program menu items, including à la carte foods. Quantity recipes and standardized recipes are not necessarily the same! Quantity recipes (such as USDA recipes or Food for Fifty recipes, etc.) are recipes written to produce food for large groups while a standardized recipe has been tested and adjusted in your school facility and is proven to produce good results. Every quantity recipe should be standardized for your facility;therefore, verify both USDA and local recipes reflect the precise production practices used in your school. Interview the employees who prepare the recipes and ensure the recipes reflect these actual ingredients and preparation practices. Standardized quantity recipes are required for all items served as part of the reimbursable meal and must include:
	+ Recipe name
	+ Recipe number
	+ HACCP category: 1) TCS-No Cook, 2) TCS-Same Day Service, 3) TCS-Complex, 4) Non-TCS/No HACCP Process
	+ Number of portions the recipe yields
	+ Portion size (cup, scoop size, each, ounces, fluid ounces, etc.); this is the amount of the food item you expect to see on a tray/plate
	+ Contribution to the meal pattern
	+ All ingredients (include the ingredient form, i.e. dehydrated, fresh, frozen, canned)
	+ Accurate scale weight (pounds and/or ounces) or volume measure (teaspoon, tablespoon, cup, fluid ounce, pint, quart, gallon, etc.) of each ingredient
	+ Preparation procedures (i.e. steamed, boiled, baked or fried; if fried, specify type of fat used; instructions for how to prepare, cook, serve, and reheat the item; equipment and utensils to be used—the cooking and serving equipment to be used in preparing and serving the recipe).
	+ Clearly identified HACCP Critical Control Points (CCP)
* **STANDARDIZED PROCEDURE** – required for all à la carte menu items including only one ingredient when standardized recipes are not developed for these items. Standardized procedures can be used for à la carte menu items such as bottled beverages or commercially packaged non-TCS items such as cookies, crackers, chips, etc. Procedures need to detail how the food is safely handled from the time it is removed from storage until the time it is placed onto the serving line. Include proper handling of leftovers and re-service of these type items (as applicable).

#### Step 2: Determine if the menu item is time/temperature control for safety (TCS) or non-TCS.

After collecting all the standardized recipes and procedures, determine if the recipes are time/temperature control for safety (TCS) foods or non-TCS foods and use this information for further recipe classification. TCS foods support the rapid growth of harmful bacteria so they always require time *or* temperature control for safety. TCS foods must be kept hot (135°F or hotter) or cold (41°F or colder).

TCS food typically includes raw or cooked animal foods (meat, fish, poultry, dairy, eggs, etc.); heat-treated plant foods (cooked vegetables, baked potatoes, cooked grains, cooked beans, texturized vegetable protein, soy-based meat/meat alternates, etc.); some fresh fruits and vegetables (cut melon, sliced tomatoes, cut leafy greens); garlic-in-oil which has not been acidified; raw bean sprouts; and cream-filled pastries.

Non-TCS foods (No HACCP Process foods) do not support the rapid growth of harmful bacteria so they do not require time or temperature control for safety. **These non-TCS foods may be served hot or cold; however, they are not subject to time or temperature control to be safely consumed.**

Below is helpful information to use when classifying recipes.

**ANIMAL FOODS**

Raw meat, fish, poultry, and unpasteurized shell eggs must be cooked to proper endpoint cooking temperatures before serving. All commercially processed meat, fish, poultry, egg products, which are often labeled "Fully cooked") need to be cooked to 135oF or hotter before serving. Milk and milk products must be stored at 41oF or colder.

**FRUITS**

Most fruits are not TCS foods because of their low pH. Figs and melons only become TCS foods after they are cut or in the case of figs, when they are heated. Cut melons must be held at 41oF or colder for safety. If figs are cooked, they must be cooked to 135oF, held at 135 o F. If leftover, figs must be properly cooled, labeled, and used within 72 hours. If not used within 72 hours, they must be discarded.

Non-TCS fruits do not need to be refrigerated for safety. They are refrigerated to extend their shelf life; however, some fresh fruits *may* have a water activity or acidity level inadequate to assure a product assessment is not needed to show they are safe. As a best practice, keep all cut fruits at 41oF or colder to increase appeal, shelf life, and safety.

(NOTE: Technically cooked fruits *may* contain adequate sugar and/or acidity to prevent harmful bacteria growth; however, it is difficult to determine the final water activity or pH level when various ingredients are added. It is unlikely the SFA will provide for the laboratory analysis for a product assessment, therefore, we will assume, in the absence of adequate information to prove otherwise, cooked fruits are to be held at a safe temperature or follow a written time as a public health control (TPHC), formerly known as time in lieu of temperature (TILT) procedure, as a precaution.)

Commercially canned fruit and commercial fruit juice is generally NOT considered a time/temperature control for safety food because of its low pH and so does not require strict time and temperature for safety. The only exceptions would be if using low-acid canned fruits such as canned figs, dates, mangoes, papaya, persimmons, etc. Items such as these classified as low-acid foods and so must be maintained at 41oF or colder for safety.

If low acid fruits are added to commercially canned high-acid fruits, the resulting fruit mixture should be considered a TCS food (i.e. bananas added to canned peaches or fruit cocktail).

It is also important to note because canned fruit has been heat processed, there is a minimal food safety hazard unless contamination takes place after the can is opened. Contamination could result if bare hands contact the exposed fruit, if somebody sneezes or coughs in it, or if dirty holding containers and utensils are used to display and dispense this product; therefore, below are the procedures to follow to minimize contamination and maintain quality. Most schools strive to keep canned fruits cold for quality.

* The unopened cans are put in the refrigerator the day before use.
* The can lid is wiped off before opening.
* The fruit is placed in a chilled pan which has been properly cleaned and sanitized.
* Pans of fruit are placed on the salad bar or serving line no more than one hour before service. If panned before then, the product needs to be covered and refrigerated until it is placed on the serving line.
* Long-handled utensils which have been properly cleaned and sanitized are in each container of fruit.
* Leftover fruit on a self-service bar or serving line must be discarded.
* Leftover fruit on an employee-monitored serving line can be saved as a leftover but must be labeled, properly stored, and used within 72 hours.
* If TCS fruits are held using TPHC procedures, follow the written procedures exactly.

**VEGETABLES/PLANT FOODS**

Most vegetables are not TCS foods until they are heated and then hot-held (exceptions include but are not limited to cut tomatoes, lettuce, spinach, cabbage, salad greens, and sprouts which must be held at a safe temperature). In our schools, all cooked vegetables are TCS foods because they are heated and then placed in a hot holding cabinet or on a hot serving line. All cooked vegetables must be heated to 135oF or hotter and held at 135oF or hotter. If leftover, they must be properly cooled, labeled, reheated, and served within 72 hours. If not used within 72 hours, they must be thrown out.

Some cut fresh vegetables *may* have a pH and water activity level inadequate to ensure food safety. It is unlikely SFAs will conduct product assessments to determine this information; therefore, as best practice, it is *recommended* to hold all cut fresh vegetables at 41o F or colder or follow an approved TPHC procedure.

* **Tomatoes.** Cut fresh tomatoes will support the growth of *Salmonella* as demonstrated by foodborne illness outbreaks. Whole fresh tomatoes do not need to be received or stored at refrigeration temperatures; however, after cutting they must be kept at 41oF or colder. Cooked tomatoes are TCS foods and so must be heated and held to 135oF or above. If canned tomatoes are cooked for hot-holding, they must also be cooked and held to 135oF or hotter. Canned tomatoes which are not cooked and mixed with other non-TCS foods are not considered TCS.
* **Lettuce, Spinach, Cut Salad Greens, Leafy Greens.** Lettuce and all other cut salad greens such as spinach, leafy greens, etc., are considered TCS foods; therefore, all fresh cut salad greens must be kept at 41oF or colder. (Note: cutting includes a cut stem.) As per the 2017 Food Code, the term “leafy greens” includes iceberg lettuce, romaine lettuce, leaf lettuce, butter lettuce, baby leaf lettuce (i.e., immature lettuce or leafy greens), escarole, endive, spring mix, spinach, cabbage, kale, arugula and chard. Previous outbreaks were due to the presence of *E. coli* O157:H7 on the outside of the spinach due to environmental contamination. If the bag of packaged salad greens states the produce is washed and ready to use, no further washing is required. Cooked leafy greens (such as cabbage, collards, kale, spinach, etc.) must be heated and held at 135oF or hotter; therefore, this recipe would be categorized as #2 Same Day Service.
* **Other Plant Foods.** Any heat-treated plant food not having been proven to be non-TCS must be classified as a TCS food. Examples include baked potatoes, sweet potatoes, cooked rice, cooked pasta, cooked pinto beans, other cooked beans, tofu or soy-based meat/meat alternate, and texturized soy/vegetable protein. These foods must be cooked to 135oF or hotter and held at 135oF or hotter. If leftover, they must be properly cooled, labeled, reheated, and served within 72 hours.  If not used within 72 hours, they must be thrown out.
	+ **Peanut Butter.** Peanut butter is not a time/temperature control for safety food because of its low water activity; therefore, peanut butter and jelly sandwiches do not need to be refrigerated for safety.
	+ **Garlic-in-oil.**  Most schools are not using garlic-in-oil as an ingredient; however, if you should use garlic-in-oil, use commercially processed product listing acid as an ingredient. If made in-house, it must be refrigerated.
	+ **Raw bean sprouts.**  Only purchase bean sprouts from an approved supplier. When received, store at 41oF or colder. Keep foods containing raw bean sprouts, such as sandwiches and salads, at 41oF or colder or follow TPHC procedures.

**Step 3: Assign the recipe/procedure to a HACCP process category.**

After deciding if a menu item is TCS or non-TCS, determine the HACCP process category for each recipe Each of the four TCS food process categories is described below. After determining the HACCP process category for each recipe, indicate the name of category on the recipe. Since the recipe includes this process category information, you may organize the recipes in a manner best suiting the SFA.

**Process Category 1: TCS-No Cook Process --** All menu items in this process category lack a cooking step thus the item does not go through the temperature danger zone (41oF to 135oF). Foods in this category include potentially hazardous or TCS foods received cold and served cold or TCS foods received hot and served hot. Include appropriate Critical Control Points (CCP) on the recipe.

#### Sample Flow Chart

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| Receive ® Store ® Prepare ® Hold ® Serve |

#### Examples of Food Items

* Macaroni salad (commercially prepared)
* Milk
* Pumpkin pie (commercially prepared)
* Tuna salad (prepared in-house)
* Lasagna delivered hot from another kitchen
* Sliced tomatoes
* Tossed salads and chef’s salads

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| Critical Control Points for No Cook  | **Hazard** |
| Cooked and/or ready-to-eat foods stored above raw foods in the refrigerator. Foods are stored in this order:* Prepared or ready-to-eat food (top shelf)
* Fish, seafood items, eggs
* Whole cuts of raw beef and pork
* Ground or processed meats
* Raw and ground poultry (bottom shelf)
 | Bacteria |
| Cold holding at 41oF or colder or using time alone (less than four hours).  | Bacteria  |
| Date marking ready-to-eat food prepared in the operation, refrigerating, and using within 72 hours from the time of preparation.  | Bacteria, specifically*Listeria monocytogenes* |
| Cooling time-temperature controlled for safety foods from room temperature to 41oF or colder within four hours. | Spore-forming and toxin-forming bacteria |
| No bare-hand contact of any exposed cooked or ready-to-eat food. | Viruses and bacteria |

**Process Category 2: TCS-Same Day Service Process --** All menu items in this process category typically pass through the temperature danger zone (41oF to 135oF) only once before serving. Foods in this category include TCS foods cooked and held until served or cooked and served immediately.

#### Sample Flow Chart

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| Receive ® Store ® Prepare ® Cook ® Hold ® Serve |

#### Examples of Food Items

* Baked beans
* Bean burrito (prepared with commercially precooked ground beef or raw ground beef and served the same day)
* Chicken noodle bake (made with commercially precooked chicken or raw chicken prepared and served the same day)
* Orange glazed carrots
* Green beans
* Rice
* Pizza
* Toasted cheese sandwich

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| Critical Control Points for Same Day Service  | **Hazard** |
| Cooking to recommended temperatures. | Bacteria and parasites |
| Hot holding at 135oF or hotter or using time as a public health control (TPHC) | Spore-forming bacteria |
| No bare-hand contact of any exposed cooked or ready-to-eat food. | Viruses and bacteria |

**Process Category 3: TCS-Complex Food Preparation Process --** Menu items cooked in advance for next day service or items cooked, cooled, and served the same day are defined as a complex food preparation process. These TCS foods pass through the temperature danger zone (41oF to 135oF) more than one time. Leftovers of any menu item typically prepared using same day service are not assigned to this category. Include appropriate CCPs on each recipe.

#### Sample Flow Charts

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| Receive ® Store ® Prepare ® Cook ® Cool ® Hold ® Serve |

Receive ® Store ® Prepare ® Cook ® Cool ® Reheat ® Hold ® Serve

#### Examples of Food Items

* Turkey roasts, cooked and cooled the day before service, then reheated for service.
* Bean burrito (made with ground beef cooked, cooled, and re-heated in the operation)
* Beef stew (made in advance, cooled, and then reheated)
* Egg salad sandwich (prepared fresh from raw eggs)
* Macaroni salad or potato salad (prepared fresh in house)

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| Critical Control Points for Complex Food Preparation | **Hazard** |
| Cooking to safe temperatures. | Bacteria and parasites |
| Cooling to 41oF within four to six hours. | Spore-forming and toxin-forming bacteria |
| Hot holding at 135oF or hotter, cold holding at 41oF or colder, or using time alone (less than four hours). | Bacteria and their toxins |
| Date marking ready-to-eat food time-temperature controlled for safety food prepared in the operation, refrigerating, and using within 72 hours from the time of preparation.  | Bacteria, specifically*Listeria monocytogenes* |
| No bare hand contact of any exposed cooked or ready-to-eat food. | Viruses and bacteria |

**Process Category 4: Non-TCS/No HACCP Process –** Menu items not meeting the definition of a TCS food and so do not require *time or temperature control for safe consumption* are placed in this category.



**Note:** Non-TCS may be served hot or cold; however, they are not subject to time or temperature control for safe consumption.

#### Sample Flow Chart

Receive ® Store ® Prepare ® Hold ® Serve

**Examples:**

* Cookies
* Brownies
* Canned, frozen, and whole fresh fruits (note exceptions above in Step 2 – Fruits)
* Plain Biscuits, bagels, toast, English muffins
* Muffins
* Plain bread, rolls, and buns
* Peanut butter and jelly sandwich
* Commercially packaged snack foods (crackers, chips, cookies, etc.)

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| Critical Control Point for Non-TCS Foods | **Hazard** |
| No bare-hand contact of any exposed cooked or ready-to-eat food. | Viruses and bacteria |

**Step 4. Identify any foods to be pre-prepared.**

Two common causes of foodborne illness are: (1) preparing food too far in advance of service and (2) improperly cooling TCS foods. Some schools prepare foods in advance because it is economical. These foods are called pre-prepared foods. Many schools also save leftovers which must be properly cooled and used within 72 hours. There is a significant difference between pre-prepared foods and leftovers. All menu items can be leftovers but not all menu items are pre-prepared; therefore, the first step is to identify which menu items you typically pre-prepare based on the following definitions of pre-prepared foods and leftover foods.

**Pre-Prepared Foods.** Pre-prepared foods are menu items (or menu ingredients) prepared in advance for future service beyond a specific meal. These items are foods cooked or prepared in house, properly chilled immediately after preparation (not held for meal service), packaged, labeled, and then frozen for future use. Examples include browned ground beef, spaghetti sauce, chili, and breads. These pre-prepared items have a frozen shelf life of four weeks. This does not include commercially processed pre-prepared foods, such as hamburger patties, breaded or grilled chicken patties, pizza, etc. For commercially processed frozen foods, follow the manufacturer guidelines for storage time.

After pre-prepared foods are identified, note them on the **PRE-PREPARED FOODS** table found at the end of this section.

**Leftovers.** Leftovers are menu items prepared and held for a specific day’s menu and are not served. Examples include a pan of soup held in a hot holding cabinet and pre-made entrée salads or sandwich wraps held in a cooler. Leftover menu items have a refrigerated or frozen shelf life of 72 hours only if the final temperature of the item at the end of serving time is within the allowable “safe” temperature range and if the items are from an employee-monitored serving line. Note: this shelf life is shorter than allowed by the Food Code because NC School Nutrition Programs hold to very high food safety standards when serving leftovers to reduce the risk of foodborne illness.

#### Step 5: Note the critical control points (CCP) on the recipe.

After assigning the standardized recipe/procedure to one of the four process categories, indicate the name of category to which it was assigned on the recipe and note the critical control point at the appropriate preparation step in the recipe. All critical control points must be properly identified on the recipe or procedure.

For example, if cooking ground beef for lasagna, write ***“CCP: Cook to 155oF or higher for 17 seconds”*** so it stands out as a critical control point on the recipe/procedure. All critical control point(s) listed on a recipe must be italicized, boldfaced, highlighted, or underlined to call attention to this important food safety step.

**NOTE:** All current USDA standardized recipes have critical control points included in the preparation steps; however, many schools modify these recipes. If the recipe is modified in any way during preparation, holding or service, the modifications must be included on the recipe.

#### Step 6: List foods subject to TPHC procedures.

TPHC foods are menu items using time without temperature as the public health control for a working supply of TCS food before cooking, or for ready-to-eat TCS food displayed or held for sale or service. All menu items subject to TPHC must be handled in strict accordance to the written TPHC food safety procedures for preparation and time limits. Include copies of all written TPHC procedures at the designated place in the recipe binder. If TPHC procedures are followed as written, temperatures of the foods at the end of service do not have to be recorded on the production record. Foods subject to TPHC must be discarded by the end of the time specified in the written TPHC procedures. The TPHC procedures should be included in the recipe instructions so employees will fully understand the preparation and serving procedures to follow while keeping the food safe.

**Step 7: Summarize the sorted menu items using the menu summary table.**

Complete the **Menu Summary** table found at the end of this section. This table must be reviewed before the beginning of each school year to be certain it is current. Include only recipes in use by your school. Any menu changes made from the previous year must be included. After it is complete, file in the recipe binder.

**NOTE:** Your nutrient analysis software *may* generate the HACCP menu summary; this listing is acceptable to replace the menu summary tables. Contact your zone Nutrition Specialist or refer to the software user’s guide for additional information.

If all menu items (including those used for à la carte, breakfast, lunch, Fresh Fruit and Vegetable Program, and After School Snack Program) have standardized recipes/procedures specifying the HACCP process category, the Menu Summary is optional. If all menu items do not have standardized recipes or processes including the HACCP category, you must list those menu items on the menu summary.

**Step 8: Organize the menu summaries, listings, and recipes in the Recipe Book.**

Organize the Recipe Book as follows:

1. Copies of menus for all meals served
2. Menu Summaries, as needed, for each of the HACCP processes – no cook, same day service, complex, and non-TCS/no HACCP process.
3. Listing of pre-prepared foods, if applicable.
4. Copies of TPHC procedures, if applicable.
5. Copies of all recipes/procedures

The School Nutrition Administrator should decide on the district’s method of organization for the Recipe Books. It is recommended, but not required, for all schools within the same district to organize binders in the same way so employees (regular and substitute) will readily know how to locate the recipes. This practice will also allow school nutrition administrators, supervisors, training managers, consultants, and others to easily locate information at each school; however, the School Nutrition Administrator should determine an organization style best for the schools in the SFA.

If all standardized recipes and procedures are available electronically at all schools within the SFA, then the School Nutrition Administrator does not have to provide hard copies of all recipes to each school; however, the site manager must print the recipes to be used so a hard copy is available to food employees in the production area daily. If an electronic version of the recipes/procedures is only available in the Central Office or at select schools, then a hard copy of the recipes must be printed and provided to each school not having access to the electronic copies.

If an electronic recipe book is used, it is acceptable to include the Menu Summary and listing of pre-prepared foods and TPHC procedures in the front of the Part 2 HACCP Plan Assessments instead of a separate binder.

**NOTE: If all menu items (including those used for à la carte, breakfast, lunch, Fresh Fruit and Vegetable Program, and After School Snack Program) have standardized recipes/procedures specifying the HACCP process category, the Menu Summary is optional. If all menu items do not have standardized recipes or processes including the HACCP category, you must list those menu items on the menu summary.**

**Place a copy of the menu(s) served in the school behind this page.**

**Include breakfast, lunch, à la carte, After School Snack, and supper as applicable.**

**Insert copies of all written TPHC procedures behind this page.**

**Organize standardized recipes/procedures for all menu items behind this page.**

**Include breakfast, lunch, snack, supper, and à la carte as applicable.**