Part 5: Menus and Recipes

All schools participating in the School Nutrition Program must have a food safety program based on Process HACCP principles and must conform to USDA guidance. In a school nutrition operation receiving transported meals, process HACCP is based on the proper sorting of menu items in one of two categories – Time-Temperature Controlled for Safety (TCS) foods or non-TCS foods.

## Step 1: List all menu items

The first step in developing a HACCP Plan is to prepare a list of all menu items including a la carte items.

#### 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 menu items are time-temperature controlled for safety (TCS) foods or non-TCS foods and use this information for further 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); heat-treated plant foods (cooked vegetables, baked potatoes, cooked grains, cooked beans, texturized vegetable protein); 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 menu items.

**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 135oF, and if leftover, 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 is inadequate to assure a product assessment is not needed to show they are safe; therefore, as best practice, we recommend keeping 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 a laboratory analysis for a product assessment, therefore, 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) procedure as a precaution.)

Commercially canned fruit is generally NOT considered a time-temperature controlled 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 as well as to 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 properly cleaned, sanitized, and chilled pan or portioned in individual containers depending on the style of meal service.
* Pans of fruit are placed on the salad bar or serving line no more than one hour before service. If panned out before then, the product needs to be covered and refrigerated until it is placed on the serving line.
* Properly cleaned, sanitized and long-handled utensils are in each container of fruit.
* Leftovers must be discarded at the end of meal service.
* 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 fresh 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 41oF 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 now 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. The outbreaks during previous years were due to the presence of *E. coli* 0157: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 proven to be non-TCS must be classified as TCS. Examples include baked potatoes, sweet potatoes, cooked rice, cooked pasta, cooked pinto beans, other cooked beans, 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 down, 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 controlled for safety food because of its low water activity. Therefore, peanut butter and jelly sandwiches do not need to be refrigerated.
	+ **Garlic-in-oil.**  Most schools are not using garlic-in-oil as an ingredient.  However, if you use garlic-in-oil, use a 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: Determine if *temperature* or *time* will be used to keep TCS foods safe.

1. Use temperature to keep foods safe. TCS foods must be kept hot (135oF or hotter) or cold (41oF or colder).

**OR**

1. Use Time as a Public Health Control (TPHC) Procedures. TPHC procedures may be implemented for menu items using time without temperature control as the public health control for a ready-to-eat TCS food displayed or held for sale or service. Refer to Appendix A for more details and a form which may be used.

#### Step 4: Determine the Critical Control Points (CCP) for safe food handling and note these on the recipes/procedures.

#### The critical control points for TCS foods are shown in the table below. These CCP practices must be implemented always.

|  |  |
| --- | --- |
| Critical Control Points for TCS foods  | **Hazard** |
| Temperature: Cold holding at 41oF or colder. | Bacteria  |
| Temperature: Hot holding at 135oF or hotter. | Bacteria |
| Time: Properly label foods when removed from temperature control and and discard within 4 hours of the labeled time. | Bacteria |
| Date marking commercially prepared ready-to-eat (RTE) food, refrigerating, and using within 72 hours from original preparation from the time opened or received.  | Bacteria, specifically*Listeria monocytogenes* |
| No bare-hand contact of any exposed cooked or ready-to-eat food. | Viruses and bacteria |

The critical control points for non-TCS foods are in the table below.

|  |  |
| --- | --- |
| 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 5: List any foods subject to TPHC Procedures (refer to Appendix A for more information).

TPHC foods are menu items using time without temperature control as the public health control for a working supply of TCS food before cooking, or for ready-to-eat time-temperature controlled for safety food displayed or held for sale or service. All menu items subject to TPHC must be handled in strict accordance to the written food safety procedures for preparation and time limits. The temperature of all TCS food is taken with a properly calibrated, cleaned and sanitized thermometer to ensure it arrives at the serving location at the proper temperature. Foods may be placed on TPHC after the receiving process is completed at the SFA. When prepared, ready to eat (RTE) food is delivered to the receiving site, a representative of the SFA or receiving facility should measure the temperature of each TCS food to ensure delivery within the safe range of 41 o F. or below for cold foods or 135 o F. or above for hot foods. This temperature should be taken by using a properly calibrated, clean and sanitized thermometer. Do not accept and serve TCS foods not at a safe temperature when delivered since you have no way of knowing how long they have been in the temperature danger zone. The only exception to this is if the food is procured from an approved SFA complying with a Commercial Kitchen HACCP Plan. If procured from a HACCP compliant SFA, the food may be placed on TPHC at the time of transport. Include copies of all written TPHC procedures at the designated place of the recipe binder. If TPHC procedures are followed as written, temperature 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 procedure. 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 6: Summarize the sorted menu items using the MENU SUMMARY tables.**

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 on pages 6-7. Contact your zone Nutrition Specialist or refer to the software user’s guide for additional information.

NOTE: If all menu items (including those used for a la carte, breakfast, lunch, Fresh Fruit and Vegetable Program, and After School Snack/Supper 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 7: Organize the menu summaries, listings, and recipes in a recipe book, binder, or folder.**

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

Have these documents readily accessible to employees who receive, prepare, serve, and discard the foods at meal service.

**MENU SUMMARY – TCS foods**

**Signature of Responsible Person** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Date completed** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*(NOTE: If needed, this table can be extended by placing the curser in the last cell of the table and pressing the “tab” key.)*

|  |  |  |
| --- | --- | --- |
| **Menu Item** | **Transported from another site?** | **Serving Temperature** |
|  | **Y N** | * **Hot**
* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
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|  | **Y N** | * **Hot**
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* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
 |
|  | **Y N** | * **Hot**
* **Cold**
 |

**MENU SUMMARY – Non-TCS foods**

**Signature of Responsible Person** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Date completed** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*(NOTE: If needed, this table can be extended by placing the curser in the last cell of the table and pressing the “tab” key.)*

|  |  |
| --- | --- |
| Menu Item | **Transported from another site?** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |
|  | **Y N** |

**Appendix A: Time as a Public Health Control (TPHC) Foods**

TPHC foods are menu items using time without temperature control as the public health control for a working supply of time/temperature control for safety (TCS) food before cooking, or for ready-to-eat TCS food displayed or held for sale or service.

TPCH procedures are especially effective for foods served in innovative or alternative service areas such as classroom, hallways, buses, or field trips. They are also useful for fast moving items which are hard to maintain temperature control (chicken nuggets or tenders, burgers, sandwiches, fries, packaged salads, etc.). When using TPHC, the food shall be cooked and served, served at any temperature if ready-to-eat, or discarded, within 4 hours from the point in time when the food is removed from temperature control.

All menu items subject to TPHC must be handled in accordance with a written procedure complying with safe food handling requirements in the Food Code. Establishments using TPHC rather than temperature must meet the standards set forth in Section 3-501.19 of the NC Food Code Manual. The establishment shall prepare written procedures in advance and shall follow them. TPHC procedures do not have to be pre-approved by the Registered Environmental Health Specialist. No Food Code violation exists if the establishment has written procedures for menu items addressing all criteria in Section 3-501.19 and the procedures are being followed.

TPHC applies only to the food product(s) and procedures described in the written procedure. Changes from the written procedures void the safety measures afforded by using time as a public health control.

TPHC applies only to the food product(s) and procedures described in the written procedure. Changes from the written procedures void the safety measures afforded by using time as a public health control.

A recommended TPHC form is included on the next page. Use of this form is voluntary; however, all required information listed in Section 3-501.19 of the NC Food Code must be included on any written TPHC procedure used in the SFA.

Refer to Part 1: *Safe Food Handling*, for a completed sample TPHC procedure.**Time as a Public Health Control Procedure (TPHC)**

*TPHC applies only to the food product(s) and procedures described. Changes from the written procedures void the safety measures afforded by using time as a public health control and an Environmental Health violation exists if the procedure is not followed.*

|  |  |
| --- | --- |
| Food or Menu Item: |  |
| Size of Batch/Quantity to prepare: |  |
| Ingredients: |  |

|  |  |
| --- | --- |
| Procedures for preparation, service, and discard: | 1. |
| 2. |
| 3. |
| 4. |
| 5. |
| 6. |

|  |  |
| --- | --- |
| **Time Control**Time control begins at the completion of the cooking process, when the food is removed from hot holding or cold holding, or the start of assembly when using room temperature ingredients. Check the appropriate box representing the beginning of time control. | [ ]  Cooking Completion - time begins at the completion of the cooking process: i.e. cooked pizza removed from the oven. |
| [ ]  Removal from hot or cold holding – time begins when the food is removed from temperature control: i.e. meats or vegetables are removed from hot holding unit, sub sandwiches or milks are removed from refrigeration. |
| [ ]  Assembly – time begins when preparing the menu item; i.e. sandwiches, salads, cut melons. Note: For cold items, the ingredients must be removed cold storage at 41° F. before assembly begins. If hot foods are being assembled, all foods must be cooked to the proper temperature and held at least 135 °F. |

|  |  |
| --- | --- |
| **Holding Time**Maximum holding time for food is 4 hours. |  |
| Specify food location during holding: |  |
| Describe labeling method: |  |
| Labeling Method includes: | [ ]  when time control begins[ ]  discard time |
| **Disposal Method:** |  |

**Insert copies of all written TPHC procedures behind this page (if applicable).**

**Organize the Recipe Book behind this page.**

Arrange the 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

**Include information for breakfast, lunch, snack, a la carte, and supper/at risk after school meals.**