Michigan Department of AGRICULTURE Food & Dairy

Food Establishment Standard Operating Procedures Manual

Who must have standard operating procedures?

- All new food establishments, except vending locations.
- Remodeled food establishments that change menu or operation.

What are standard operating procedures?

- Procedures specific to your operation that describe the activities necessary to complete tasks in accordance with the food code and Michigan food law. The procedures are used to train the staff members responsible for the tasks.
- Three purposes for establishing SOP's for your operation are: to protect your products from contamination from microbial, chemical, and physical hazards; to control microbial growth that can result from temperature abuse; and to ensure procedures are in place for maintaining equipment.

Why must procedures be submitted?

- Michigan's food law requires standard operating procedures to be established prior to opening.

How must procedures be developed?

- Procedures are mostly for use by managers and employees. Develop procedures in the language, style and format best for the establishment. An English copy of the procedures is needed for the plan reviewer.
- For those that need assistance, see the help section.

What procedures must all establishments submit?

- Handwashing.
- Personal hygiene, including cuts and sores.
- Preventing bare hand contact with ready-to-eat food (gloves, utensils, etc.).
- Employee illness.
- Purchasing food from approved sources.
- Cleaning and sanitizing food contact surfaces.

What procedures must all establishments submit when applicable to their operation?

- Cross-contamination prevention.
- Warewashing.
- Date-marking ready-to-eat, potentially hazardous food (time/temperature control for safety food)*.
- Using time only (not time and temperature) as a method to control bacterial growth.
- Thawing potentially hazardous food (time temperature control for safety food)*.
- Cooking potentially hazardous food (time temperature control for safety food)*.
- Cooling potentially hazardous food (time temperature control for safety food)*.
- Reheating potentially hazardous food (time temperature control for safety food)*.
- Hot holding potentially hazardous food (time temperature control for safety food)*.
- Cold holding potentially hazardous food (time temperature control for safety food)*.
- Mobile food units and special transitory food units (STFU's) only- water supply.
- Mobile food units and special transitory food units (STFU's) only- wastewater disposal.

Once procedures are developed, where should they be sent and what happens to them?

- Procedures should be sent to the agency reviewing the plans as soon as they are ready.
- Procedures can be sent with the plans or may be sent later.
- Technically correct procedures must be in place by the pre-opening inspection.
- Plan reviewers will make sure the information in the procedures is correct. Be sure to leave enough time to make corrections. Contact your plan reviewer for help.
- Procedures should be kept on-site and used by the person in charge and employees.

Standard Operating Procedure (SOP) Writing Help

For establishments that need help in writing a standard operating procedure, this section contains:

- Blank forms in a suggested format.
- Sample handwashing SOP.
- Suggested questions to answer, technical help and Food Code references for each required SOP. Michigan has adopted the 2005 FDA Model Food Code as law in Michigan.

Make copies as needed

Standard Operating Procedure
Establishment Name: _____

Subject:

What will be done and who will do it?

Who will make sure it's done and how?

How should problems be fixed?

What records will be kept?

Created (Date): By:
Last Revised: By:

Standard Operating Procedure
Joe's Coney Dogs

SAMPLE

Subject: Handwashing

What will be done and who will do it?

New employees must:

- Review this procedure.
- Watch the video "Effective Handwashing."
- Be trained by the team leader.
- Sign off on the new employee training checklist.

All employees must wash hands at labeled handsinks (2 in kitchen). DO NOT wash at dishwashing, food or mop sinks. Handwashing steps are as follows:

- Use water as hot as you can stand.
- Soap hands and lower forearms.
- Scrub for 20 seconds.
- Rinse.
- Dry with paper towel.
- Avoid recontamination of hands by using paper towel or other barrier to turn off faucet handles.

When must all employees wash hands?

- At beginning of shift.
- After using toilet.
- After coughing, sneezing, using tissue or handkerchief, eating, drinking or using tobacco.
- Between touching raw food and ready-to-eat food.
- Between glove changes.
- After handling dirty dishes.
- After touching hair or any body part except clean hands and arms.
- During food preparation as often as necessary to prevent cross-contamination.
- After doing other activities that contaminate the hands, such as handling trash or chemicals.

Who will make sure it's done and how?

- Team leaders are expected to continually model appropriate handwashing practices for employees.
- Team leaders shall monitor employee handwashing.
- Dishwashing staff are to assure that handwashing stations, including bathrooms, are supplied with soap and paper towels.
- Team leaders shall monitor handsinks at least once per shift to assure that sinks have the necessary supplies. The day team leader shall assure that necessary supplies are in stock.

How should problems be fixed?

- Team leaders must immediately train and counsel employees who improperly or inadequately wash hands or don't keep handsinks supplied.
- Team leaders must notify owner of any handwashing problems that can't be solved through training and counseling.

What records will be kept?

- Complete new employee training checksheet.

Created (Date): 6/15/04 By: Joe Dawton, Owner
Last Revised: By:

For each standard operating procedure that may be required, questions to answer and technical information are listed.

Handwashing

Questions to answer

- What training will employees receive?
- What training will supervisors receive?
- What is the correct way to wash?
- When should employees wash?
- Where should employees wash or not wash?
- Who will keep sinks supplied with soap and paper towel?

Technical Help (See Food Code 2-301.12; 2-301.14; 2-301.15)

- All handsinks in bathrooms and kitchens must be labeled with a sign. Washing hands at dishwashing, mop or food sinks is not allowed.
- Handwashing steps are:
    - use water as hot as you can stand
    - soap hands and lower forearms,
    - scrub for 20 seconds,
    - rinse
    - dry with paper towel or hot air dryer
    - use paper towel or other barrier to turn off faucet handles.
- Hand sanitizers can be used after washing hands. Hand sanitizers may not be used to replace washing hands.
- All employees must wash hands:
    - at beginning of shift,
    - after using toilet,
    - after coughing, sneezing, using tissue, eating, drinking or using tobacco,
    - between touching raw food and ready-to-eat food,
    - between glove changes,
    - after handling dirty dishes,
    - after touching hair or any body part except clean hands and arms,
    - during food preparation as often as necessary to prevent cross-contamination, or
    - after doing other activities that contaminate the hands, such as handling trash or chemicals.

Personal hygiene

Questions to answer

- What personal hygiene steps are needed before an employee comes to work?
- What clothes or uniforms must employees wear to work?
- What must an employee do if they have a cut or sore on their hands, arms or face?
- Where can employees drink, smoke or eat?
- What employee training will be done?

Technical Help (See Food Code subparts 2-201.11(A) (1) (e); 2-302.11; 2-303.11; 2-304.11; 2-401)

- Outer clothing of food employees must be clean.
- Any cuts, burns, boils, skin infections or infected wounds on a food handler should be covered with a bandage. Cover bandages on hands with gloves. Food handlers with bandages may need to be assigned to jobs that do not involve food contact.
- Eating, drinking or using tobacco can only be done in certain areas away from food or equipment. Employees may drink in the food preparation area if the drink has a cover that does not have to be touched (a cover and a straw often work well).

Preventing bare hand contact with ready-to-eat food

Questions to answer

- What ready-to-eat foods are served?
- How will hand contact with ready-to-eat foods be avoided? For each food, should an employee use utensils, deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment?
- Are different types of single-use gloves needed for employees that do different jobs? Are only vinyl gloves being used to eliminate allergic reactions from latex gloves?
- Is avoiding bare hand contact with some foods not feasible? If you answered yes, will ready-to-eat food be touched with bare hands under a written policy that complies with the 2005 Food Code? Approval from the regulatory authority is required.
- What employee training will be done?

Technical Help (See Food Code 3-301.11 and 3-301.12)

- Ready-to-eat foods are foods that are edible without washing, cooking or additional preparation. This includes raw animal foods that have been cooked; raw fruit and vegetables that have been washed, rinds, peels, husks or shells removed, and/or cooked for hot holding; all potentially hazardous food (time/temperature control for safety food)* that have been cooked and cooled; and baked goods.
- Food handlers may not touch ready-to-eat foods with their bare hands. Food employees can touch raw fruits and vegetables to wash them before they are cut.
- Some ways to avoid touching ready-to-eat food include using utensils, deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment.
- Suppliers make many different types of gloves. Some are loose and some are tight fitting. Some have powder and some are powder-free. Some employees may have or may develop allergies to latex gloves. Consult your glove supplier for assistance.
- Avoiding the handling of some ready-to-eat foods may not be possible. When food employees must touch ready-to-eat food, the establishment must first have approval from the regulatory authority along with written procedures, a written employee health policy, documented employee training, documented handwashing and two or more control measures that meets 2005 Food Code section 3-301.11 (D).

Employee Illness

Questions to answer

- What personal health information should be asked of applicants?
- What personal health information should be required from new hires and existing employees?
- How are employees trained to understand and report illness?
- When employees report illness, under what conditions should they be restricted from food handling or excluded from the establishment?
- When can restricted or excluded employees return to work handling food?
- When must the health department be notified about an ill employee?

Technical Help (See Food Code subpart 2-201)

- The person in charge must notify the local health department when a food employee is diagnosed with an illness due to any of the **BIG FIVE**: Norovirus, Salmonella typhi (Typhoid Fever), Shigella (Shigellosis), Escherichia Coli O157:H7, or Hepatitis A virus.
- Employees must report if they have any of the **BIG FIVE**. This includes applicants once they have been made a conditional employment offer. Employees must report if they have diarrhea, fever, vomiting, jaundice, sore throat with fever, or lesions containing pus on an exposed body part. Employees must also report if they have been exposed to or are suspected of causing a confirmed outbreak, of any of the **BIG FIVE**. They must also report if: a. they live with a household member who has any of the **BIG FIVE** or b. if a household member works in or attends a setting where any of the **BIG FIVE** have caused a confirmed outbreak.
- The person in charge must exclude from the establishment employees diagnosed with any of the **BIG FIVE.**
- The person in charge must restrict or exclude employees with other symptoms. Restrict means the employee may not work with food, clean equipment, linens, etc. Read 2005 Food Code section 2-2 Employee Health for more information.
- The 2005 Food Code contains model forms in Annex 7, which an employer can use.
- Contact the local health department when there are questions about handling an ill employee.

Purchasing food from approved sources

Questions to answer

- What are the approved sources that food can come from?
- What are sources of food that are unacceptable?

Technical Help (See Food Code 3-201.11-17)

- Buy only from suppliers who are getting their products from licensed reputable purveyors and manufacturers who inspect goods and follow public health laws.
- Meat must be USDA inspected and/or graded.
- Home-prepared and home-canned food is not allowed.
- Wild mushrooms must be inspected.
- Uninspected wild game or wild caught fish is not allowed.

Cleaning and sanitizing food contact surfaces

Questions to answer

- What are the food contact surfaces in the establishment?
- What equipment must be cleaned in-place?
- How often do surfaces and clean-in-place equipment need cleaning and sanitizing?
- What chemicals will be used to clean and sanitize?
- What procedures will be used to clean and sanitize surfaces?
- What procedures will be used to clean and sanitize clean-in-place equipment?
- What employee training will be done?

Technical Help (See Food Code 1-201.10; 4-501.114; 4-601.11; subparts 4-602&3)

- Food contact surfaces are surfaces that food normally comes into contact with. Also, they are surfaces from which food may drain, drip or splash into food or onto a food contact surface.
- Cleaning is the removal of food, soil, and other types of debris from a surface. Detergents are cleaning agents that remove grease or fat associated with food residues. Cleaning does not, by itself, consistently reduce contamination to safe levels.
- Sanitizing is an additional step that can only occur after a surface is already clean. Sanitizing involves the use of heat or chemicals to reduce the number of microorganisms to safe levels.
- Procedures for cleaning and sanitizing equipment that cannot be immersed in a sink are often highly specific to the piece of equipment. Food Code and manufacturer specifications should be followed closely.
- Follow the manufacturer's label and Material Safety Data Sheet (MSDS) for cleaners and sanitizers used.
- Generally use a 3-step process on surfaces: 1. Wash, 2. Rinse, 3. Sanitize.

Cross-contamination prevention

Questions to answer

- What surfaces, pots, pans or utensils have both raw and ready-to-eat foods touch them?
- Do raw meats need special storage to prevent contamination of ready-to-eat foods?
- How do cooks taste foods during preparation to avoid contamination?
- How will cutting boards be managed to prevent cross-contamination?
- How are fruits and vegetables cleaned and stored?
- How are in-use utensils stored?
- What employee training will be done?

Technical Help (See Food Code part 3-3)

Store and prepare foods to prevent contamination. Some methods of preventing cross-contamination include:

- A utensil may not be used more than once to taste food that will be served or sold.
- Use separate equipment for each type of food. Separate beef, fish, lamb, pork and poultry from each other unless intentionally mixing during preparation.

- Store food in package, covered container or wrappings.
- Clean visible soil from cans of food before opening.
- Properly manage cutting boards. Washing, rinsing and sanitizing cutting boards and food contact surfaces between preparing raw and ready-to-eat foods is required. An option is to use color-coded cutting boards to help prevent cross-contamination. For example, use red for meat, blue for fish, green for vegetables. When using a surface for the same food for many hours, clean and sanitize at least every four hours.
- Prepare raw and ready-to-eat foods at different times or in different areas.
- Separate washed fruits from unwashed fruits.
- Store food in this order in refrigerator.

Top shelf	Ready-to-eat-foods
	Fish
	Beef Roasts, Steaks
	Ham, Pork Chops, Eggs
	Ground Meat
Bottom shelf	Poultry

- Wash all fruit and vegetables thoroughly. Illnesses have been caused by contaminated produce. It may be impossible to remove bacteria from items such as sprouts and green onions. Consider not serving these raw.
- Wash melons and other fruits before cutting them. This prevents bacteria on the surface from being transferred to the fruit in the middle.
- In-use utensils can be stored: a. in the food, b. in a running water dipper well, c. on a clean surface, if the utensil and surface are cleaned and sanitized at least every four hours, d. in a container of hot water (at least 135°F). Container and utensils must be cleaned once every 24 hours.
- Don't let customers use soiled plates or silverware for refills at buffets.

Warewashing

Questions to answer

- What needs to be washed?
- How often do items need to be washed?
- Where does it need to be washed?
- What chemicals are used for washing and sanitizing?
- What are the set-up and washing procedures?
- What employee training will be done?

Technical Help (See Food Code parts 4-6 & 4-7)

- All pots, pans, utensils, silverware, plates, etc. need to washed, rinsed and sanitized after being used.
- Employees need direction whether to wash items in a dishwashing sink or an automatic dishmachine.
- Dishwashing sinks require the following steps:
    - scrape food from dishes into disposal or garbage,
    - wash in hot soapy water,
    - rinse in clear hot water,
    - sanitize by soaking in a chemical sanitizing solution, and
    - air dry.

- An approved chemical sanitizer must be used. Approved chemical sanitizers contain chlorine, iodine or quaternary ammonium. Follow manufacturer's instructions.
- Dishmachines must be operated per manufacturer's instructions. Dishmachine's sanitize using either a hot water or chemical spray during the final rinse.

Date-marking ready-to-eat, potentially hazardous food (time/temperature control for safety food)*

Questions to answer

- What food requires date-marking?
- What date-marking system will be used?
- What employee training will be done?

Technical Help (See Food Code 3-501.17)

- Certain unpackaged foods must be clearly marked to indicate the date or day by which the foods must be consumed by with the day of preparation counted as Day 1.
- This applies to foods that are potentially hazardous (time/temperature control for safety food)*, ready-to-eat and that will be held more than 24 hours.
    - ready-to-eat foods are foods that are edible without washing, cooking or additional preparation. This includes raw animal foods that have been cooked; raw fruit and vegetables that have been washed, rinds, peels, husks or shells removed, and/or cooked for hot holding; all potentially hazardous foods (time/temperature control for safety food)* that have been cooked and cooled; and baked goods.
- Foods must be marked at the time of preparation, or in the case of a commercially processed food, at the time that the container or packaging is opened in a retail facility.
- Date marking is not the same as the “last date of sale”? A “last date of sale” is required for prepackaged perishable foods being offered for retail sale. Firms which package perishable foods must identify the product’s suggested shelf life by use of a date based on both food safety and quality characteristics. “Last date of sale” requirements are spelled out in Section 8107 of the Michigan Food Law of 2000, as amended.
- Foods that **do not** require date marking are as follows:
    - foods that are not ready-to-eat (example: raw chicken).
    - foods that are not potentially hazardous (time/temperature control for safety food) (example: whole wheat bread).
    - whole, unsliced portions of cured and processed lunchmeat or other meat food products still remaining in the original cellulose casing after the casing is cut. (example: shelf stable salami)
    - certain hard and semi soft cheeses identified by FDA that are not PHF/TCS (but may still require refrigeration). Food Code section 3-501.17 (F) (2) and (3), and http:\\vm.cfsan.fda.gov\~ear\ret-chdt.html
    - commercially prepared deli salads, such as ham salad, seafood salad, chicken salad, egg salad, pasta salad, potato salad, and macaroni salad, manufactured in accordance with *21 CFR 110*.
    - cultured dairy products as defined in *21 CFR 131 Milk and cream*, such as yogurt, sour cream, and buttermilk

Using time only (not time and temperature) as a method to control bacterial growth

Questions to answer

- What foods does your establishment plan to use time as the only control for bacterial growth?
- What are the specific procedures that will be used?
- What employee training will be done?

Technical Help (See Food Code 3-501.19)

- Time only, rather than time in conjunction with temperature, can be used as a public health control only for: a. working supplies of potentially hazardous food (time/temperature control for safety food)* before cooking, b. ready-to-eat potentially hazardous food (time/temperature control for safety food)* that is displayed or held for service or immediate consumption.
- If time, up to a maximum of 4 hours, is used as a public health control a. the food must be marked with the time that is 4 hours past the time it is removed from temperature control and b. food must be cooked, served or discarded within the 4-hour limit. For example, a hamburger is cooked and wrapped at 11:00 am, then held at less than 135°F. The package must be marked 3:00 pm to show the time it must be sold or thrown away by.
- If time, up to a maximum of 6 hours, is used as a public health control the following measures must be taken:
    - the food must have an initial temperature of 41°F or less,
    - the food must be monitored to ensure that the warmest area of the food does not exceed 70°F within the 6-hour limit
    - the food must be marked with the time the food is removed from 41°F or less cold holding temperature
    - the food must be marked with the time that is 6 hours past the time it is removed from cold holding temperature
    - the food must be discarded if it exceeds 70°F or cooked, served, or discarded with the 6-hour limit
    -

Thawing potentially hazardous food (time/temperature control for safety food).*

Questions to answer

- What foods does your establishment thaw?
- What are the specific thawing procedures that will be used?
- What employee training will be done?

Technical Help (See Food Code 3-501.12; 3-501.13)

- Approved thawing methods are: a. in the refrigerator, b. submerged under running water 70°F or below, c. while cooking and d. in a microwave only if the food is immediately placed in conventional cooking equipment.

Cooking potentially hazardous food (time/temperature control for safety food).*

Questions to answer

- What foods or groups of foods must be cooked? For example, fish would be a group of foods.
- What is the minimum cooking temperature for each food or group of foods?

- How will temperature be checked?
- What employee training will be done?

Technical Help (See Food Code part 3-4)
Minimum internal cooking temperatures are:

165°F	Poultry, stuffing, stuffed meat or fish, casseroles, egg dishes, dishes combining raw and cooked food. Potentially hazardous food (time/temperature control for safety food)* cooked in microwave.
155°F	Ground or flaked meats
145°F	Pork, beef and pork roasts, beef steaks, veal, lamb, commercially raised game animals, fish, foods containing fish, shell eggs for immediate service. See the Food Code, subpart 3-4 for alternate cooking times for beef and pork roasts and ground meat.
135°F	Fruits and vegetables that are cooked for hot holding.

Note: Cook to this temperature for at least 15 seconds

Cooling potentially hazardous food (time/temperature control for safety food).*

Questions to answer

- What foods or groups of foods must be cooled? For example, gravies and soups would be groups of foods.
- What cooling procedures will be used for different foods or groups of foods?
- How will cooling times and temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-501.14-15)

- Cooked potentially hazardous food (time/temperature control for safety food)* shall be cooled in two steps, not to exceed a total of 6 hours. Cool from 135°F to 70°F within 2 hours from or less, and from 70°F to 41°F in the remaining 6 hour limit.
- Food prepared from ingredients at room temperature shall be cooled to 41°F within 4 hours.
- Cooling methods include:
    - placing food in shallow pans.
    - separating food into smaller or thinner portions,
    - using rapid cooling equipment, (for example an ice paddle).
    - stirring the food in a container placed in an ice bath.
    - adding ice as an ingredient.
    - other effective means.
- Cover food loosely or leave uncovered to help cool food faster.
- Discard food that has not been cooled in the required time.
- Don't use equipment to cool foods unless the equipment has the ability to cool the food in the required times.

Reheating potentially hazardous food (time/temperature control for safety food).*

Questions to answer

- What foods or groups of foods must be reheated?

- What reheating procedures and equipment will be used for different foods or groups of foods?
- How will reheating times and temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-403.11)

- When previously cooked food is reheated for hot holding, reheat to 165°F for 15 seconds within 2 hours.
- Properly cooked food reheated for immediate service, such as the roast beef for a sandwich, may be served at any temperature.
- Discard food that has not been reheated to 165°F in 2 hours.
- Don't use equipment to reheat if the food can't be reheated to 165°F in 2 hours.

Hot holding potentially hazardous food (time/temperature control for safety food).*

Questions to answer

- What foods or groups of foods will be held hot?
- What hot holding equipment will be used for different foods or groups of foods?
- How will hot holding times and temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-501.16; 3-501.19)

- Use only hot holding equipment that can keep foods at 135°F or higher.
- Stir foods often.
- Keep foods covered.
- Take food temperatures at least every 2 hours.
- Discard foods if they have not been held at or above 135°F.

Cold-holding potentially hazardous food (time/temperature control for safety food).*

Questions to answer

- What foods or groups of foods will be held cold?
- What cold-holding equipment will be used for different foods or groups of foods?
- How will cold-holding temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-501.16)

- Use only cold-holding equipment that can keep foods at 41°F or lower.
- Keep foods covered.
- Take food temperatures at least every 2 hours.
- Discard foods if they have not been held at 41°F or below.

Mobile food units and special transitory food units (STFU's) only- Water Supply

Questions to answer

- Where will potable (drinkable) water be obtained from?
- How will the water connection be made?
- How will the individual fixtures or pieces of equipment be protected against backflow, backsiphonage or cross-connection?

Technical Help (See Food Code part 5-1; subpart 5-202; subpart 5-205; and part 5-3)

- An adequate supply of potable water must be available on-site for cooking and drinking purposes, and for cleaning and sanitizing equipment, utensils and food contact surfaces.
- Air breaks or air gaps in the waste drain lines is required for certain equipment. Certain water line connections must have the proper type of protective device. Your plan reviewer can help answer your questions on specific requirements.

Mobile food units and special transitory food units (STFU's) only- Wastewater Disposal

Questions to answer

- How will you dispose of wastewater?

Technical Help (See Food Code part 5-4)

- Liquid wastewater (from sinks, ice machines, ice chests, mop water) must be properly disposed of using a sanitary sewer or approved holding tank. Wastewater cannot be dumped into storms drains, waterways or onto the ground.

***Which foods would be considered potentially hazardous (time/temperature control for safety food)**?

Potentially hazardous food (time/temperature control for safety food) means a food that requires time/temperature control for safety to limit pathogenic microorganism growth or toxin formation. Since microorganisms generally grow rapidly in moist, high protein foods that have not been acidified or otherwise further processed to prevent such growth.

Examples of PHF/ (TCS)s include, but are not limited to:

- Animal foods that are raw or heat treated such as:
  - Milk or milk products including cheese and whipped butter
  - Meats including raw or partially cooked bacon
  - Shell eggs
  - Fish
  - Poultry and poultry products
  - Shellfish
- Food derived from plants that are heat treated including:
  - Onions (cooked and rehydrated)
  - Cooked rice
  - Soy protein products (example: tofu)
  - Potatoes (baked or boiled)
- Food derived from plants that consist of:
  - Cut melons, or
  - Raw seed sprouts.
- Garlic-in-oil, and other vegetable-in-oil mixtures that are not treated to prevent the growth and toxin production of *C. botulinum*;
- Certain sauces, breads, and pastries containing potentially hazardous food (time/temperature control for safety food) (examples: meat, cheese, cooked vegetables or cream)

What is Not a PHF/TCS?

- An air-cooled hard boiled egg with shell intact;
- A food with water activity of 0.85 or less;
- A food with a pH of 4.6 or below when measured at 75°F;
- A food in a hermetically sealed container commercially processed to achieve and maintain sterility;
- A food for which laboratory evidence has demonstrated that rapid and progressive growth of pathogens or the slower growth of *C. botulinum* cannot occur.

Food establishment managers are responsible for accurately determining which of the foods they serve or sell are potentially hazardous and therefore require strict temperature control. Use Tables A and B found in the Food Code under section 1-201.10 (B) Potentially Hazardous Food (Time/Temperature Control for Safety Food) to help in determining PHF/TCS foods.

Assistance in determining if food meets these requirements is generally available from food industry consultants, independent consulting laboratories certified to conduct microbiological testing of foods, and university-based food scientists.