Volume

1

RESTAURANT X

123 Main Street, Phoenix, Arizona

Food Safety Manual

RESTAURANT X

Food Safety Training Manual

Note to New Author

Thank you for your interest and your enthusiasm in developing your own personal food safety system. Please remember that the regulations set forth in this training manual reflect the Maricopa County Environmental Health Code. It is important to remember when writing your manual, not to be less stringent than the requirements set forth in this document; doing so may lead to serious food safety challenges within your operation. If your operation resides outside of the jurisdiction of Maricopa County, please be sure to check with your local regulatory agency so that proper code requirements are followed.

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Table of Contents

Introduction

WELCOME TO (RESTAURANT X)

(Restaurant X) takes pride in serving safe and great tasting food to our customers, family and friends. Our customers may not notice the attention we give to food safety but it is one of the most important focuses here at (Restaurant X). We all share the responsibilities for making sure that the foods we prepare and serve to our customers are safe.

WHY ARE FOOD SAFTEY PROCEDURES IMPORTANT?

According to the Center for Disease Control, it is estimated that each year in the United States alone there are 76 million cases of foodborne illness resulting in 325,000 hospitalizations and 5,000 deaths.

To help prevent this, there are laws that govern food handling. This manual is designed to cover some of the practices that if done improperly could result in a customer becoming sick.

Our restaurant uses a systems based approach to food safety often called a HACCP (Hazard Analysis and Critical Control Point) plan. This means we have set procedures on how to perform most tasks in the restaurant from receiving of foods, to preparation, to the service to the customer.

Foodborne Illness

Let's begin our discussion by talking about what is foodborne illness. There are three main types of illness: Physical; Chemical; and Biological.

Physical foodborne illness is caused by when a foreign object enters the food and the customer eats it. An example would be a pushpin falling out of a corkboard and entering the food. The customer may bite down on the pin and break a tooth.

Chemical foodborne illness occurs when a chemical enters the food and a customer ingests it. We need chemicals for cleaning and sanitizing of our establishment, but we need to be careful to keep them separated from the food that we serve. An example of a chemical foodborne illness may be an employee forgets to label a spray bottle containing a yellow liquid (degreaser). Another employee gets the spray bottle believing it is olive oil and begins to spray it on the pasta when it is done cooking. The customer now gets pasta with degreaser to eat resulting in him becoming ill.

The third type of foodborne illness is the most common – Biological. This can then be further broken down into three more subcategories: Viruses; Foodborne Intoxications; and Foodborne Infections. Viruses are pieces of DNA that can multiply within a living organism such as Hepatitis A. Foodborne intoxications involve a bacteria growing outside of a human and producing a toxin. The human then eats the toxin and becomes ill normally within a matter of hours. Foodborne infections involve a human eating the bacteria and then the bacteria produce a toxin within the person causing illness.

ersonal Hygiene

ood personal hygiene practices are an essential part of providing safe food to ır customers. Among these hygiene practices, the most important is hand ashing. Employees must wash their hands and forearms using the following ocedure:

- First, moisten hands with hot water and apply hand soap.
- Second, vigorously rub hands together scrubbing between your fingers, under your fingernails, your forearms, and the back of your hands. You must continue scrubbing for at least 20 seconds. It is the hand soap combined with the scrubbing action that removes the dirt and germs from your hands.
- Third, you must completely rinse your hands under running water and dry them with a disposable paper towel.

You must be aware of what your hands are touching at all times. You should recognize when your hands become contaminated and wash them to keep from passing the contamination on to the food you are preparing and serving. It is always necessary to wash your hands:

- When you first arrive at work;
- Prior to handling food, utensils, and single service articles;
- Before putting on gloves to handle ready-to-eat foods and between glove changes.
- Before and after handling or touching any raw foods such as raw meats, chicken, and eggs.
- After using the bathroom;
- After touching any part of your body or uniform;
- After handling dirty equipment, dishes or utensils;
- After taking a break;
- After any other activity that may contaminate your hands such as washing dishes, sweeping the floor, taking out the trash, eating or drinking, coughing, or sneezing.

You must wash you hands in an approved, designated hand sink. Sinks used to wash dishes or prepare food are not approved for hand washing. The hand wash sink must always be accessible and have an adequate supply of hot water, hand soap, and paper towels.

If you work with food must always be clean and in good health; you should bathe daily and wear clean cloths. You must never go to work if you are sick, especially if you have symptoms of diarrhea, vomiting, fever, or if you have any discharge from your nose or eyes. You should notify your supervisor when you are sick and certain illnesses will require you to stay home until your doctor has cleared you. You must have fingernails that are cut and maintained and should not have painted or fake fingernails. All jewelry must be removed prior to handling food with the exception of a simple wedding band. While working with open food you must have an effective hair restraint, such as a hat or hair net. Finally, you must never eat or smoke in food preparation or food storage areas.

Direct bare hand contact with ready-to-eat foods is prohibited. Ready-to-eat foods are those that will not be subjected to further cooking or heating to destroy bacteria; these may include, sandwiches, cut fruit, bread, tortillas, salads, or any cooked food. In order to handle ready-to-eat foods, you can use utensils, tongs, scoops, or wax paper. In situations where it becomes necessary to touch the food with your hands, you must always wear disposable, non-latex gloves. Even though you may use gloves to handle food with your hands, you must always wash your hands prior to putting on the gloves and change the gloves when they become contaminated, as in all of the situations previously mentioned. **You must wash your hands each time you change your gloves or contaminate the gloves.**

1. What are the steps of hand washing?
    A. Apply soap to your hands, rub your hands together for 20 seconds, rinse your hands, dry you hands with a disposable paper towel, and turn off the faucet with the same paper towel used to dry your hands.
    B. Apply soap to your hands, rub your hands together for 1 minute, rinse your hands, and dry you hands with a clean cloth.
    C. Rinse your hands under hot water for 20 seconds, dry your hands with a disposable paper towel, and turn off the faucet with the same paper towel.
    D. Immerse your hands in a solution of water and chlorine for at least 30 seconds and dry your hands with a disposable paper towel.

2. When must you wash your hands?
    A. At least every 30 minutes.
    B. When your supervisor tells you.
    C. When customers can see your hands.
    D. Each time your hands become contaminated.

3. Where must you wash your hands?
    A. In any sink that is free and accessible.
    B. Only in an authorized and designated hand wash sink.
    C. In the authorized hand sink or in the dish wash sink if the hand sink is not working or available.
    D. In the sanitizer bucket.

4. What should you do if the gloves you are using to handle food become contaminated?
    A. Remove the gloves, store them in a clean place, wash your hands, and put the gloves back on.
    B. Remove the gloves, throw the gloves away, and put on new gloves.
    C. Remove the gloves, throw the gloves away, wash your hands, and put on new gloves.
    D. Remove the gloves, handle the food with your bare hands but only if they are clean, and put the gloves back on when you have time.

5. Where or when can you smoke and eat in the establishment?
    A. You can smoke and eat in any area of the establishment but only when the food is covered and stored.
    B. You can never smoke or eat in the kitchen or in areas where food is prepared or stored.
    C. You can eat in the kitchen but not smoke.
    D. You can eat in the kitchen but only during a break or lunch.

6. Are you allowed to work if you have a contagious illness?
    A. Yes.
    B. It depends on the type of contagious illness you have.
    C. Never.
    D. If no one can tell you are sick.

(1) A; (2) D; (3) B; (4) C; (5) B; (6) C

Cleaning and Sanitizing

Maintaining the kitchen scrupulously clean is vital to food safety. You should recognize that even surfaces that appear clean might still have harmful germs that you cannot see. Only by cleaning and sanitizing equipment, dishes, and surfaces that come into direct contact with food, can we eliminate and destroy these invisible germs.

There is a difference between washing and sanitizing. Washing removes visible soil and contamination and sanitizing kills and reduces the number of harmful bacteria that you cannot see. You are required to both wash and sanitize every surface that comes into contact with food to assure that they are completely free of any contamination.

Wiping cloths for cleaning and sanitizing must be available in every work area for equipment such as meat slicers, counters, food preparation tables, cutting boards, and utensils. Always wash, rinse, and sanitizer these surfaces before and after they have come into contact with food. Also, because bacteria grow and multiply in moist environments, moist wiping cloths must be stored in a bucket of water and sanitizer when they are not in use. This sanitizing solution must be changed frequently; food debris uses up the sanitizer quickly.

It is important that the disinfectant be at the proper concentration to ensure that the germs are destroyed and that the solution is not dangerous. The only sure way to measure the concentration is with a paper test strip. The white paper test strips

will change to a medium blue if the chlorine is at the correct concentration- between 50 and 100 parts per million. If you use other types of disinfectants, such as quaternary ammonia or iodine, the appropriate test strips for these products must be used according the manufacturer's instructions.

The same principles of washing and rinsing apply when washing dishes by hand in a three-compartment sink. Before starting you must clean each sink compartment and drain board. Then pre-scrape the dishes to remove the excess food. Now you can begin the three-step process:

- In the first compartment, thoroughly wash the dishes with detergent and hot water.
- In the second, rinse the dishes in clean hot water to remove the soap. (Mixing detergent with sanitizer can prevent the disinfectant from eliminating the germs)
- Third, the dishes must be sanitized in a solution of sanitizer and room temperature water. You must ensure that the sanitizer is at the adequate concentration by using the appropriate chemical test strips. The dishes should remain completely immersed in the solution for at least 30 seconds.

After cleaning and sanitizing it is necessary to let the dishes air dry on the drain board or rack. Once dry you should store them in a clean place where they will be protected from contamination.

1. What are the steps for washing dishes by hand?
   A. Scrape off the excess food, wash with soap and hot water, rinse with hot water, sanitize, and air dry.
   B. Scrape off the excess food, rinse with hot water, wash with soap and hot water, sanitize and air dry.
   C. Scrape off the excess food, wash with soap and hot water, sanitize, air dry.
   D. Scrape off the excess food, wash with soap and hot water, rinse with hot water, air dry, and sanitize.

2. The chlorine in the solution used to sanitize food contact surfaces must be at what concentration?
   A. You must use a capful of chlorine for every gallon of water.
   B. The concentration of chlorine is not important.
   C. The concentration must be between 50 and 100 parts per million, which can be measured with a chlorine paper test strip.
   D. The concentration must be at 200 parts per million, which can be measured with a chlorine paper test strip.

3. What is the difference between washing and sanitizing?
   A. There is no difference.
   B. Washing makes things look clean and sanitizing make them smell good.
   C. Washing removes contamination and sanitizing whitens.
   D. Washing removes contamination and sanitizing destroys microorganisms.

4. What are some of the critical food contact surfaces that must always be washed and sanitized?
   A. Bathrooms, floors, and walls in the kitchen.
   B. Break room, the surface of the griddle, and dining room tables.
   C. Cutting boards, knives, utensils, and equipment.
   D. Floor of the service area, the outside of equipment and display cases, and counters.

(1) A; (2) C; (3) D; (4) C

Cross-Contamination and Food Storage

Cross-contamination occurs when harmful germs from raw foods or contaminated surfaces are passed onto the food. This transfer of germs may occur in any of the following situations:

- When hands that have touched raw food touch foods that are ready to eat.
- When raw or contaminated food touch foods that are ready to eat.
- When a ready to eat food comes into contact with surfaces that were not properly washed and sanitized after having been in contact with a raw food. Food contact surfaces include cutting boards, knives, utensils, and food preparation tables.
- When dirty wiping cloths or wiping cloths contaminated with raw foods are used on surfaces that come into contact with ready to eat foods.

You can prevent cross-contamination by washing and sanitizing every utensil, cutting board, food preparation table, and work area before and after coming in contact with food. Use the cleaning methods previously mentioned and adequately wash you hands, especially after handling raw foods.

In addition, always stored raw meats, eggs, poultry, and fish in containers and store them on the lowest shelves of the refrigerator. This will prevent the raw products from leaking or falling onto foods that are ready to eat. Finally, all foods must be stored at least six inches above the floor at all times.

1. How must raw animal foods be stored in the refrigerator?
    A. On the floor of the walk-in cooler away from other foods
    B. In containers stored on the lowest shelves of the refrigerator.
    C. Raw shell eggs can be stored with cooked food and the other raw products on the lowest shelves.
    D. All food products that are going to be cooked or reheated and raw foods can be stored together en the walk-in cooler.

2. What must you use to sanitize equipment, tables, and other work surfaces that come into direct contact with the food?
    A. It is not necessary to sanitize things that cannot be completely submerged in the dish sink compartments.
    B. You must use a wiping cloth that has been soaked in a solution of water and an approved sanitizer.
    C. You must use a wiping cloth that has been soaked in a solution of water, soap, and chlorine.
    D. You must use a wiping cloth with chlorine but only at the end of the workday when all of the food is put away.

Food Storage Limits

Foods should always be used in the same order in which they were received. All arriving food products should be marked with a date so you know which inventory to use first.
In addition, any ready-to-eat potentially hazardous food (see definition below) must be marked with a discard date at the time of opening or preparation. The discard date must be 7 days after the food was prepared or opened, if the food has been refrigerated at 41° F or less. (4 days if refrigerated at 45° F)

1. For how long can a ready-to-eat potentially hazardous food be stored in the refrigerator once it has been opened or prepared?
    A. For seven days if the food has been maintained below 41° the entire time.
    B. For seven days but only if the food tastes, smells or looks bad.
    C. For 14 days if the food has been held below 32° F the entire time.
    D. If you follow the rule to use foods in the same order they were received, the food can be stored for an indefinite amount of time.

(1) A

Approved Foods

Any foods served in your establishment must come from an approved source. Homemade food cannot be used or offered for human consumption in a food establishment. All packaged food must carry a label or seal on the packaging that indicates the name of the processor or distributor, the name of the food, and the ingredients.

All foods arriving at your workplace must be free of spoilage. Canned foods must have an intact seal and be discarded if swollen. Potentially hazardous foods should be rejected if they arrive at an unsafe temperature. Packaged foods should be rejected or discarded if the arrive damaged.

1. Which of the following foods would be approved for use in your establishment?
    A. Any homemade food.
    B. Potentially hazardous foods that arrive at your establishment at room temperature.
    C. Any food that is from an approved source, properly labeled, and in proper condition.
    D. Any meat product that is packaged and labeled but does not have a valid mark of inspection.

(1) C

Toxic Chemicals and Pest Control

All chemicals, lotions, detergents, medicines, sanitizers, and cleaners must be stored away from food, utensils, and food preparation areas. Any chemical product that is not in its original container must be clearly labeled as to its

contents. For example, when you transfer a chemical from its original container to a spray bottle, the spray bottle must now be labeled with the name of the chemical.

Pesticides and pesticide equipment cannot be present or stored in a food establishment. Applying any pesticide is strictly prohibited unless it is done by a professional, licensed pest control applicator. Pesticides should only be used as a last resort, after every available preventive measure has been taken. The best way to control cockroaches, mice, flies and other pests is to keep the establishment and garbage areas clean, and to eliminate hiding places.

1. What is the best way to get rid of roaches?
    A. Use a powder pesticide instead of a spray.
    B. Leave the lights on all time, even when the business is closed.
    C. Seal areas where the roaches can hide and keep the establishment clean.
    D. Smash them with your food or a heavy object.

2. Where must you store chemicals such as cleaner and sanitizers?
    A. At least 6 inches above the floor.
    B. With equipment and clean utensils.
    C. Away from any food or clean equipment and utensils.
    D. On the shelf above food and utensils.

(1) C; (2) C

Food Temperatures

Cooking the food to the proper temperature is the best way to destroy harmful germs that may be present in foods. Most types of germs are killed through cooking. The cooking temperatures may vary depending on the type of food.

It is extremely important that you use a metal stem thermometer to check the temperature of the food you are cooking. To correctly measure the temperature you must insert the thermometer into the thickest part of the food that is cooking. The thermometers must be washed and sanitized before coming into contact with the food, and between uses, to prevent contamination.

TYPE OF FOOD	TEMPERATURE *(Degrees F)*	EXAMPLE
POULTRY	**165**	chicken, turkey, chicken patties
GROUND BEEF	**155**	hamburgers, meat loaf, sausage
EGGS *(THAT* **ARE NOT** *FOR IMMEDIATE SERVICE)*	**155**	custard, scrambled eggs on a buffet line
NON-GROUND MEATS	**145**	steak, roasts, pork chops, corned beef
SEAFOOD	**145**	fish filet, shrimp, mussels
EGGS *(THAT* **ARE** *FOR IMMEDIATE SERVICE)*	**145**	eggs over easy, scrambled eggs to order

Any food cooked in a microwave oven must be cooked to 165º F, stirred at least once during cooking, and then left to stand covered for a minimum of two minutes prior to serving.

Once the food has been cooked to the appropriate temperature, the food must be kept free from contamination. In the same manner, all ready to eat foods should be protected from contamination because they will be consumed without further cooking.

The Temperature Danger Zone

Potentially hazardous food (or food that can support the growth harmful bacteria) must be maintained above 130º F or less than 41º F at all times. This means that food that is held cold in a refrigerator should be below 41º F and cooked food that is being held hot must be held above 130º. Harmful bacteria grow and multiply very quickly between 41º and 130º. The range of temperatures between 41º and 130º is called the temperature danger zone. Whenever possible, you must avoid having foods in the temperature danger zone. Likewise, all potentially hazardous foods should spend as little time as possible in the temperature danger zone during preparation, reheating, and cooling.

Reheating

Food that is cooked and refrigerated that is being prepared for immediate service may be reheated to any temperature. However, if a food is cooked, cooled, and reheated with the intention of holding it hot, the food must be reheated to a temperature of at least 165° F. Reheating must be rapid. Cold foods placed into a steam table will not reheat quickly enough. Instead use a microwave, stovetop, or oven to heat the food before placing it in the steam table. A food should only be reheated once.

Cooling

Cooling is usually the riskiest step in food preparation. If the food is not cooled properly the food can remain in the temperature danger zone too long. It can be very difficult to cool food quickly and most refrigeration units are not designed or capable of this. Therefore, you should avoid cooling whenever possible. You should prepare foods daily by cooking and holding hot only the food that will be served during that day.

Nevertheless, the cooling of some foods in unavoidable and you must know the proper way to cool foods quickly. Cooling foods rapidly can be achieved using one or more of the following methods, based on the type of food that is to be cooled:

- Separate the food into smaller portions or thinner portions and place them in shallow containers;
- Stir the food while the container is submerged in a water and ice bath;
- Use metal containers to allow easier heat transfer
- Add ice as an ingredient;
- Use equipment designed for quick cooling of foods;
- Leave the food partially covered or uncovered. (If it is protected from contamination)

Thawing

Foods must never be left to thaw at room temperature. At room temperature the outer part of the food will thaw quickly and may remain in the temperature danger zone for too long while the center of the food continues thawing. The safest way to thaw food is inside a refrigerator. Inside the refrigerator the temperature of the food will always remain below 41° F, out of the temperature danger zone. When you thaw raw products, place them in a container and store the container on the lowest shelf in the refrigerator to prevent contamination of the other foods. You may also thaw foods under cold running water or in a microwave if it is part of the cooking process.

Thermometers

Any refrigeration equipment you use must be equipped with a thermometer that measures the internal temperature. Use a metal stem thermometer to check foods you are cooking, holding hot or cold, or cooling. Thermometers must be cleaned and sanitized prior to being inserted into the food and between uses to prevent contamination of the food.

1. Hot, cooked potentially hazardous food must be maintained above what temperature?
   A. Above 130º F at all times.
   B. Between 41° F and 130° F at all times.
   C. Above 41° F at all times.
   D. At any temperature if the food is already completely cooked.

2. Cold potentially hazardous food must be maintained at what temperature?
   A. Below 41° F at all times.
   B. Between 41° F and 130° F at all times.
   C. Above 41° F at all times.
   D. At any temperature if the food is packaged and from an approved processor.

3. Why must potentially hazardous food be kept out of the temperature danger zone?
   A. To prevent altering the smell and color of the food.
   B. To prevent the bacteria from growing and multiplying.
   C. To prevent frozen foods from thawing.
   D. Because customers like to eat foods that are either very hot or very cold.

4. Raw chicken must be cooked to what temperature?
   A. Greater than 130º F.
   B. Greater than 145º F.
   C. Greater than 155º F.
   D. Greater than 165º F

5. What is the proper procedure for cooling food?
   A. Leave the food at room temperature for 2 hours and then store it in the walk-in cooler.
   B. Always cool the food in the same container in which it was cooked.
   C. The methods you use to cool the food are not important so long as the food is reheated to above 165º F.
   D. The food should be cooled in uncovered, shallow containers inside the walk-in cooler.

6. What is the correct procedure for reheating food?
   A. You should quickly reheat the food to a minimum temperature of 165º F before placing it in the steam table.
   B. First the food must reach room temperature and then it can be reheated to 165º F within 2 hours.
   C. If the food is going to be held hot in a steam table, it can be reheated to any temperature.
   D. Reheating procedures are not important as long as the food is handled properly before hand.

7. What is the correct procedure for thawing food?
   A. At room temperature.
   B. In a hot water bath.
   C. Inside a refrigerator or under cold running water.
   D. At room temperature if the food is in its original packaging.

(1) A; (2) A; (3) B; (4) D; (5) D; (6) A; (7) C

Emergencies

You should know how to respond to emergency situations. If a sewer or waste system backs up in the drains, or if the water supply is cut off or damaged, you should notify the manager and close the business right away. You should also close the business if there is an extended power or hot water outage.

If a piece of equipment that you rely on to keep foods hot or cold fails, you must think and act quickly. If possible, shift food into an alternate refrigerator or warming unit. If you are unsure how long a refrigerator or freezer has been malfunctioning, take the temperature of foods inside the unit using a metal stem thermometer. If the food is above 45 degrees, discard it. If frozen food has thawed, do not refreeze it, and discard it if the temperature exceeds 45 degrees.

If you are unsure how to respond to an emergency, you should call the health department for advice.