

HACCP REGULATIONS: WHAT'S COOKING?

The goal of every quick serve restaurant owner is to offer tasty food -- quickly, economically and safely -- to thousands of customers each day. Due to the volume of patrons, the sheer amount of food preparation and the speed in which customers are served, this is no small task.

Day-in and day-out, food safety can be a difficult thing to maintain as there are so many variables to ensuring it. Contaminated water supplies, a slightly undercooked entree, or the handling of food by someone infected with a contagious disease can all cause problems. Couple this with the aging of the population and the number of individuals with immuno-compromised diseases and the focus on food safety is expected to rise. In fact, the annual costs of food-borne illnesses, according to the Centers for Disease Control (CDC), are between \$10 million and \$83 million in pain, suffering, reduced productivity and medical expenses.

What does it all mean? Primarily that quick serve restaurant operators should pay an even greater level of attention to food safety than ever before. Simply put, the old methods of keeping food safe from contamination -- sight, smell and touch -- are simply not as reliable and effective as newer methods available today.

What is the solution? Many in the industry are looking to the HACCP (Hazard Analysis and Critical Control Points) Guidelines for help.

WHAT IS HACCP?

HACCP is a scientifically designed program that identifies the steps in a food production continuum where contamination is most likely to occur and then puts in place preventive controls. It also helps identify the foods and procedures along the way that are most likely to cause food-borne illnesses. The system encompasses procedures designed to reduce the risk of food-borne outbreaks and monitors practices throughout an operation to ensure food safety.

The flow of food in a foodservice environment consists of receiving, storing, preparing, cooking, holding, serving, cooling and reheating. Proper time and temperature controls are critical to HACCP.

HACCP principles can be applied by retail franchises or chains and by small independent restaurants and can be integrated into the recipes and standard operating procedures of any sized establishment.

THE HISTORY OF HACCP

HACCP was developed in the 1950s by a food manufacturer. It was adopted later by NASA for the purpose of ensuring food safety in space so astronauts would not become ill. The food manufacturer worked with NASA to design critical safety controls into a preventive system around NASA recordkeeping requirements and the U.S. Army's medical supply program. More and more, restaurants are complying with HACCP as well.

INSTITUTING HACCP AT YOUR RESTAURANT

While setting up a HACCP program might seem involved, it really takes a lot of the procedures already in place for food safety and adds science and a framework around it. The good news? Once the system is instituted and your staff is trained, proper food safety procedures are followed whether or not the person who developed them stays in your operation or leaves.

The main component of HACCP in restaurant environments is a "Process Approach," which can be mapped out via a flow chart. The process approach divides procedures in a restaurant into broad categories, analyzes the risks, and places managerial controls on each category.

One way of looking at it, according to the Center for Food Safety and Applied Nutrition (CFSAN), is by dividing the "flow of food" into three categories. These include:

Food Process with No Cook Step: Receive - Store - Prepare - Hold - Serve.

Food Preparation for Same Day Service: Receive - Store - Prepare - Cook - Hold - Serve.

Complex Food Preparation: Receive - Store - Prepare - Cook - Cool - Reheat - Hot Hold - Serve.

Identifying the food flow is important for determining where hazards are and then deciding which safety controls should be implemented.

After identifying the flow of food at your facility, the next step is to form a team to design and carry out a plan based on HACCP principles. The owner or general manager, chef, and cook are instrumental here. You may also want to bring in other industry consultants, university and regulatory professionals. These individuals can help ensure that your HACCP program is based on science and has identified all hazardous areas in your operation.

Next in developing your HACCP Plan are eight guidelines. These include:

One: Categorize your menu items into one of the three food flow categories above.

Two: Identify the hazards associated with each menu item in each process. Worksheets are available from the Center for Food Safety and Applied Nutrition with the operational steps to help those developing HACCP plans design procedures to monitor critical control points. Following are the operational steps and potentially dangerous situations:

Receiving: Contamination from pathogens and the formation of harmful toxins.

Storage: Microbial growth in refrigerated foods.

Preparation: Bacterial growth and contamination from employees and equipment as this stage involves thawing, mixing ingredients, cutting, chopping, slicing or breading.

Cooking: Contamination from pathogens. Critical time and temperature limits are key here.

Cooling: Excessive cooling times of potentially hazardous foods such as poultry, soup and chili. This can be a factor contributing to food-borne illnesses.

Reheating: Holding food at improper temperatures. Pathogens can multiply at this stage. Therefore, proper reheating provides an important control for eliminating them.

Holding: Spore-forming bacteria can occur if cooked food is not held at the proper temperature.

Set Up and Packing: Proper wrapping, tray assembly, transportation and display case arrangement to ensure freshness.

Serving: Poor personal hygiene. Proper hygiene, such as handwashing, is of the utmost importance since it is the final step before food reaches the consumer. In fact, the CDC estimates that as many as 40 percent of food-borne illness outbreaks can be attributed to improper handwashing and cross-contamination.

Three: Review the critical control points and critical limits needed to minimize or eliminate significant food safety hazards and decide whether the most effective method of controlling identified hazards is through a CCP (critical control point) or an SOP (standard operating procedure).

Four: Monitor your standards to see if they are being met. Having CCPs and not monitoring them defeats the purpose of your food safety program. Make sure employees are involved in this process, understand the CCPs and know your standards. Employees should be carefully trained in programs such as the

International Food Safety Council's SERVSafe Program in order to monitor CCPs and know how to take corrective action if critical limits are not met.

Five: Correct situations where a critical limit is not met. Many corrective actions are very simple, such as continuing to heat an item if the end cooking temperature has not been reached. Corrective actions should be documented in written records.

Six: Verify on a daily, weekly or monthly basis that monitoring is being done by designated employees.

Seven: Effective recordkeeping is critical in this stage and should involve every employee in the establishment. First determine what documented information will assist you in managing the control of food safety hazards. Then develop a simple system for tracking it.

Eight: Lastly, long-term verification of the HACCP plan should be conducted annually. Make changes based on such things as new menu items and ingredients, among others.

While the eight procedures may seem involved, the more knowledge you have about food safety the easier it is to implement the system. Once done, it can become a way of life -- helping to create a safer environment.

PRODUCTS TO AID IN HACCP IMPLEMENTATION

Fortunately, there are numerous products on the market to assist restaurants in implementing the HACCP process. These include such items as:

- Continual and on-demand **temperature monitoring products** which aid in the automation of recordkeeping, verification and validation procedures.
- **Disposable gloves** for back-of-the-house use where kitchen employees will be using a pair of gloves for an extended period of time.
- **Plastic gloves** for short-term protection when handling food one moment and handling cash the next.
- **Hair nets and hats** to prevent hairs that can carry staph bacteria from being introduced into foods.
- **Aprons** for workers handling meat.
- **No-touch soap and towel systems** for handwashing which dispense soap without a user touching dispensers to reduce the spread of germs and risk of cross-contamination.
- **Color-coded cutting boards** matched to a specific type of food product. For example, red for meat, green for lettuce.
- **Food rotation labels or date-stamping equipment** to ensure that foods are used before they go bad.
- **Knives with detachable cutting mechanisms** that make cleaning and sanitizing easy.

HACCP IN “REAL LIFE”

So how does HACCP work in “real life”? Let’s take a look at some guidelines in the production of chili.

The International Food Safety Council offers an excellent example that details critical control points and ways to avoid contamination at those points. When cooking chili, for instance, it points out that once cooked ground beef has been added to the pot, the cook should “continue heating chili until 165 degrees F or higher is reached for at least 15 seconds.” The recipe also points out that the chili should be held at 140 degrees F or higher and should be cooled to a temperature of 40 degrees F or lower within four hours.

As another example, let’s take clam chowder, as written in ID Magazine. Here are some steps to consider: First check the expiration date on the can of clams (if using canned). Next check the can opener. Old can opener blades can cause metal chips to end up in foods. The drive gear that rotates the can past the blade can also get worn over time, too.

After a batch of chowder is made, it has to be held for service. A good solution here is a soup pot with a thermostatic control and see-through lid. This can minimize the chances of contamination and help maintain safe holding temperatures.

At the end of the shift, the chowder needs to be chilled quickly. Placing in a plastic, ice-filled chilling tube in the center of the pot will lower the temperature of the chowder to below 40 degrees F -- well within a safe time limit.

OTHER IMPORTANT FOOD SAFETY TIPS

In addition to HACCP, a common sense approach to food safety is important as well. Keep in mind the following International Food Safety Council suggestions:

- Food safety starts on food arrival at a restaurant. Check freshness dates.
- Check the temperature of the trucks that deliver product.
- Make sure all employees know when food is delivered, broken down and when it should be used by.
- Use older products first.
- Consider switching to suppliers that implement HACCP Guidelines in their operations.
- Make sure cold foods are stored at suggested temperatures usually around 42°F.
- Look into alarm systems on refrigerators to know if a power failure or surge turned off your refrigerator when you weren’t there.
- Store and thaw foods properly.
- Sanitize cutting boards after use.
- Thoroughly wash all fruits and vegetables.

- Train employees on food sanitation procedures. Have a certified food handler on each shift.
- Calibrate oven or grill equipment temperatures.
- Devise an equipment cleaning system and timetable.
- Have a regular mopping schedule to keep floors clean.
- Sanitize sponges and run through the dishwashing system.
- Make sure there are plenty of HACCP Hand Washing Stations and hand sinks with no-touch cleansers and hand sanitizers, and hands-free towel and bathroom tissue systems.
- Communicate with health departments to learn when codes change and when new employee training may be required.
- Train employees to wash and sanitize hands before work, after using the bathroom and between food preparation of different foods.

OTHER SOURCES FOR FOOD SAFETY INFORMATION

Other organizations to contact for food safety advice include the SERVSafe Program of the International Food Safety Council, Chicago. The International Food Manufacturers Association, Chicago, and the Food Marketing Institute, Washington, D.C., can also be of help.

Remember, it's better to be safe than sorry when it comes to food handling and safety. Adequate HACCP planning and training can go a long way in ensuring that your restaurant minimizes the risk of food-borne illnesses and the financial and public relations fallout that can accompany such a situation.

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