#3. THE DEVELOPMENT OF A HACCP-BASED, RETAIL FOOD INDUSTRY SELF-CONTROL PROGRAM

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When the retail food establishment owner has a basic understanding of HACCP and realizes that he or she is responsible for making the government-inspected, raw food that is to be prepared in his or her facility safe, then, it is time to develop the facility's HACCP program. The basis of the HACCP program will be the menu, the type of food that the owner intends to sell, and how the owner intends to operate.

The HACCP Policy Manual

To review, the table of contents of a typical, retail food HACCP policy manual is shown in Figure 1.

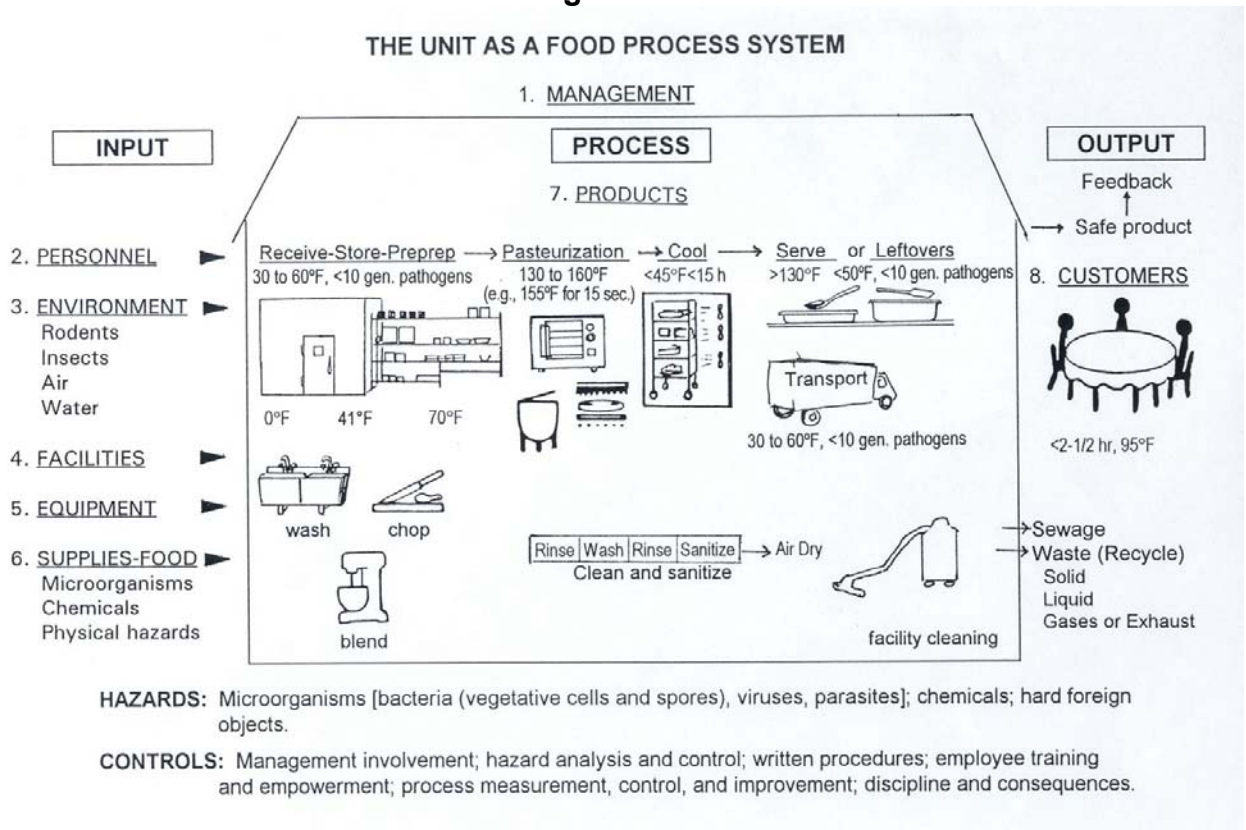
Figure 1. Retail Food Operation Food Safety through Quality Assurance Policies, Procedures, and Standards Manual

1. Food safety policy and procedures
2. Organization for HACCP-based TQM
3. System description
4. Reserved for special uses (e.g., GMPs)
5 Supplier HACCP
6. Recipe HACCP
7. Cleaning and sanitizing schedule and instructions
8. Maintenance schedule and instructions
9. Pest control schedule and instructions
10. HACCP-TQM employee training program and record
11. Self-inspection, continuous quality improvement
12. Food safety program verification and certification

The Food Process System

If a successful, integrated HACCP program is to be developed, it is critical that the retail food operation is perceived as a three-part system with eight major components that must be completely described in order to assure that customers' food is safe. This is shown in Figure 2.

Figure 2.



The first component is **management**, which assures that the system functions according to the written, operating HACCP policy manual.

There are three parts to the system: the INPUT**,** PROCESS, and OUTPUT. The system begins, as required by HACCP, by describing first the output, or the eighth component,--the **customers**--who they are, what their sensitivities are to pathogenic organisms, and what the owner intends to sell to these customers in order to have repeat customer sales. If the owner wants to cater to children and adults, there needs to be a restriction on what can be served to this clientele in terms of microbiological pathogen levels. While it may be acceptable for a middle-aged, healthy person to eat fresh, raw oysters, steak tartar, raw fish, etc., these are not menu items that young children (below age five), who have not developed good, strong immune systems yet, or the elderly, whose immune systems are being compromised by medication, should be given the option to consume.

Next, the components of the input (the **environment** and **supplies-food**) are evaluated for hazards. What is the source of water, and to what degree must the operator purify the water to make it safe? Does the air contain hazardous pollutants or contaminants? What is the necessary control to keep rodents and insects from entering the building?

There is no restriction on the level of pathogenic organisms, chemicals, or hard foreign objects in food if the hazard is known and there is a control of the hazard introduced in the processes. If toxic substances can be removed, if rocks can be screened out, and if the food can be cooked sufficiently to reduce the vegetative pathogens to a safe level, it is possible to start with virtually any ingredient in a HACCP program, providing the process makes the food safe to eat for the specified clientele.

The third part of the system is the process. The four components of every process are:

- **Facilities** (walls, structure, etc.). The facility keeps pests--rodents and insects--outside, and provides a sufficient barrier so that external contaminants cannot enter the food area.
- **Equipment**. The equipment processes the incoming food ingredients to make them safe.
- **Personnel**. The personnel have been empowered by the owner/operator to make the input ingredients safe for consumption.
- **Products**. The processes create the products that are safe for consumers to eat.

The process always involves the same basic steps:

Purchasing and ingredient specifications
Receiving, storing, and pre-preparation
Pasteurization
Cooling
Transporting and serving
Use of leftovers.

Keep in mind that the basic document driving this system is the menu (products served to the customers).

Step 1 in the Development of the HACCP Policy Manual: Food Safety Policy and Procedures

Figure 3 is a model food safety policy and procedures statement that the owner must create in order to show that he or she is committed to foodborne illness prevention. There may be, by chance, the failure of an employee to perform a task correctly. However, owners are required by law to show due diligence that they have done their best to assure safe food. Every employee in the operation should be taught this commitment statement upon being hired and should be able to "recite" this policy statement in order that there will be a strong commitment within the organization to doing every task safely, according to the prescribed operating procedures.

Figure 3. Food Safety Policy and Procedures

Policy

It is the policy of this establishment to operate so that there is complete assurance that both customers and employees will receive the optimum nourishment, and will never be made ill from our food, or be injured by a foreign object in our food.

In order to achieve this operating standard, we will be guided by the Food and Drug Administration's Foodservice Sanitation recommended ordinance, our local state and city rules, and this Hazard Analysis Critical Control-Based, Food Safety Policy, Procedures, and Standards Manual.

Procedures

Four-step QA cycle. All persons will follow the four-step Quality Assurance cycle. This means that in performing tasks, all people will first PLAN what they will do and how it can be done safely. Second, they will ORGANIZE and learn to do each task correctly. Third, they will OPERATE, doing tasks according to the procedures and standards of this manual, and will immediately check that they have met standards at each step in the tasks they perform.

Stop if unsure. If a person does not know how to do a food preparation task safely, he or she will stop, ask, and then be taught to do it correctly by his/her supervisor. In case of a mistake, he or she will take any necessary action immediately to assure that customers or other employees are not injured.

Reporting. Employees must stop and report potentially hazardous food handling practices, potentially hazardous conditions, or potentially hazardous foods to the supervisor, immediately. Management must be notified as soon as possible if the situation is not corrected and there is still a hazard.

Improvement. Fourth, employees will MEASURE and evaluate what they have done, and will make suggestions to management as to how tasks and steps can be improved in the next operating cycle with a higher degree of Quality Assurance.

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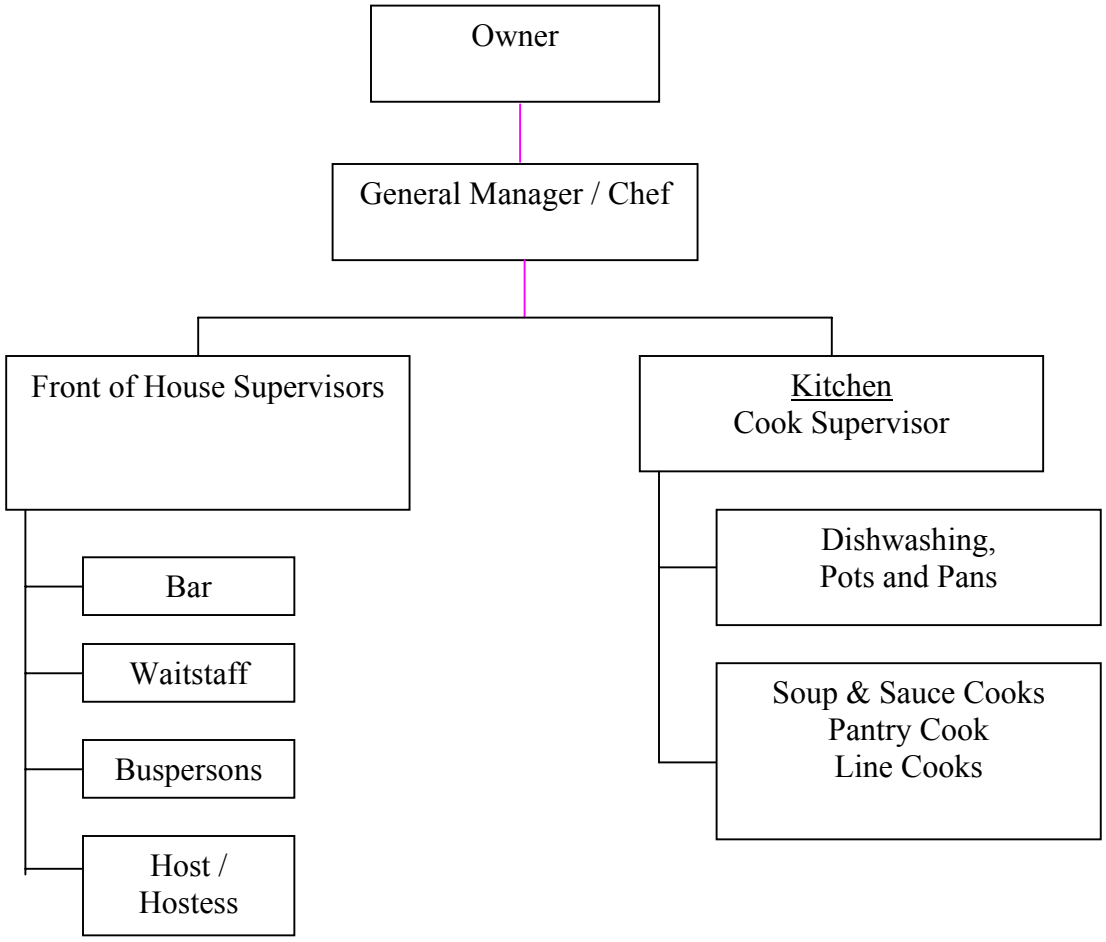
Owner Date

Organization for HACCP-based TQM

Figure 4 is a model organization chart for a small restaurant and lounge.

Figure 4. Organization for HACCP-based TQM



Why is the organization chart essential to the HACCP policy manual? It is the employee on the line who makes the food safe. The owner has the responsibility of empowering employees. This means training them, providing them with correct tools, and offering them positive reinforcement so that they will continue to do their jobs correctly. For this to happen, every employee must have a supervisor who is responsible for that employee's performance and training. This must link to the owner and general manager, who are ultimately responsible for correct knowledge within the organization.

This chart should correspond with the training program, so that there is proof, as shown in training records, that all employees have been trained to perform their tasks correctly.

Summary

This article describes the beginning of the HACCP-based TQM policies, procedures, and standards manual, which is the basis for the food operation's self-control program, and can be completed by the owner. The actual identification and specification of the hazards and then, validation that the controls work will be described in future articles.

Currently, the retail food regulatory system has neither the equipment nor training to validate retail food processes as safe. Hence, this will be the responsibility of the owner, with, perhaps, the help of a private consultant or assistance from a local college or university food science department.

Before food is prepared and dispensed to a group of people, there must be pre-control in the form of employee training and recipe analysis that will assure that the food to be served is safe. The retail food industry represents a wide range of foods and feeding situations. These include unique situations such as a training program for wilderness survival, whereby people are taught to eat various wild plants and animals; cruise ships with gourmet food; or Boy Scout fund raisers, as well as fine dining in restaurants and hotels. In each case, there is an expert, very often the owner of the business, who understands the food and what must be done with the food to ensure its safety. That person, then, develops the operating procedures and recipes for employees to follow so that the randomly contaminated food is made safe by the specified procedures so that customers can enjoy their dining experiences.

While the FDA has specified a few rules for food handling, when one considers the wide variety of foods that are served in America, it is obvious that we will never have government rules for most food-handling practices. That is why the only possible, successful, food safety program is a self-control program whereby operators take a disciplined approach to assuring that the food is safe. This series of articles discusses this planned approach. The next article discusses what to include in the description of the system.