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PROPER FOOD HANDLING: HACCP IMPLEMENTATION, RULES FOR FOOD HANDLING PERSONNEL

***Abstract:** In this paper, the most important guidelines and instructions on HACPP will be highlighted as well as proper sanitary conditions in food service and food preparation areas. Proper hand washing is very important especially when: entering the kitchen, using restroom, after sneezing, coughing, touching hair or body, touching aprons or clothing, after smoking, eating or drinking, handling raw foods, after handling garbage or soiled equipment, cleaning tables or touching dirty dishes, after touching not sanitized surfaces, handling chemicals, before and after the use of disposable gloves. In restaurants is extremely important to be aware of dangerous diseases and contagious sicknesses. Every case of sickness should be reported to the head of department immediately. All working surfaces in the restaurant should be sanitized with appropriate disinfectants before and after each meal. Ready to eat meals should be touched with disposable gloves only that are changed each time interruption or task changing occurs. Food needs to be cooked thoroughly and the internal temperatures should be measured prior to service. In the dishwashing area, two dishwashers need to operate at all times, one strictly for dirty and one for handling the clean dishes. All tableware that was used by infected guests, should be pre-soaked and pre-flushed prior to load into dish washer. All food that was served on the buffet should be thrown away, not reused for personnel meals. Use of labels with expiration date and product name is mandatory. When storing new load of supplies, FIFO system should be respected (first in-first out). When handling the food in the kitchen, different cutting boards should be used for different types of food. There are six different colors of cutting boards meant to be used for different supplies. Dish washer and ice machine are to be cleaned properly and as often as specified. There is a connection between quality of products and services, consumer's satisfaction and organization profitability. High quality level results in the high level of consumer's satisfaction, what supports higher prices and often low expenses. Also, programs of quality improvement influence the profitability improvement.*

***Keywords:** HACCP, food handling, sanitation, quality.*

1. INTRODUCTION

The Hazard Analysis Critical Control Point system was created in 1971 by the Pillsbury Company. It was developed for NASA to ensure that the food served to astronauts was completely safe. The idea behind a HACCP plan is to identify critical points throughout the “flow of food” where hazardous conditions may occur and take actions to reduce those hazards present at each critical point. The Educational Foundation of the National Restaurant Association defines a hazard as:

- unacceptable contamination (of biological, chemical or physical nature)
- unacceptable microbial growth
- unacceptable survival of micro organisms of a concern to food safety, or persistence of toxins.

Following proper safety and sanitation guidelines help to reduce the risk of hazardous conditions and the illnesses that result from them.

The “flow of food” is the path that any food item will travel from initial production to distribution, storage, handling, preparation and service.

2. “CRITICAL CONTROL POINT” (CCP)

A “critical control point” is defined by The Educational Foundation of the National Restaurant Association as an operation (practice, preparation step, procedure) by which a preventive or control measure can be applied that would eliminate, prevent or minimize a hazard.

3. SEVEN STEPS OF AN HACCP PROGRAM

The National Advisory Committee for Microbiological Criteria for food identifies seven steps to operate an HACCP program. They are:

1. Analyze hazards
Assessing the hazards present at each step in the flow of food and developing procedures that lower the risk for each step.
2. Identify critical control points
3. Establish critical limits
Setting up control procedures and standards for critical control points.
4. Monitor critical control points
5. Establish corrective actions
Taking corrective actions when there is a break from procedures set up at a critical control point.
6. Keep records
Developing a record-keeping system that documents the HACCP plan.
7. Verify HACCP system
Verifying that HACCP system is working.

4. CLEANING AND SANITATION

Proper cleaning of all surfaces is advised to be done in three steps: wash, rinse, disinfect, using two buckets, one for washing with soap and water and one for rinsing. Disinfectant should be applied on the wiped surface and left to air dry for five minutes without wiping. Sanitation includes procedures and practices that help prevent, reduce and/or eliminate bacteria, viruses and related pests that cause food safety and food quality problems. Sanitation includes protecting the food, cleaning food contact surfaces and equipment, personnel hygiene, waste disposal, pest control and care for toilet

and hand washing facilities. Sanitation procedures and guidelines are an essential prerequisite for a successful HACCP program. An effective HACCP program depends on sanitation.

5. PERSONAL HEALTH AND HYGIENE

It has been long recognized throughout the Public Health Community and the Foodservice Industry that the food handlers transfer harmful bacteria and viruses through touching. Despite the generally held belief that cold causing germs and viruses are spread through sneezing and coughing, the majority of transmission comes from hand-to-food contact and transfer of germs person to person. Protecting food from hand contamination must always be the first line of defence in minimizing the risk of food borne illness. The risk can be reduced by:

- daily shower
- hand washing
- wearing single use gloves.

The human body is a reservoir for a wide variety of organisms (germs) which can be found on healthy skin and hair, nose, mouth, damaged skin and intestinal track. Ideally shower should be done at least once a day and after any physical exercise. Showering removes body odour, dirt, bacteria and dead skin from the body. Removing dirt bacteria and dead skin increases the health. Most bacteria on the body cause no problems than perhaps offensive body odour, but the same bacteria in food causes a variety of illnesses.

Food handling personnel shall wash their hands often, particularly:

- after touching bare human body parts
- after using the toilet

- after smoking, eating or drinking
- after handling soiled equipment or utensils
- during food preparation and as often as necessary to remove soil and contamination and to prevent cross-contamination when changing tasks
- when switching between working with raw food and working with ready-to-eat food
- any time the hands become contaminated.

Hand washing is the simplest and most effective thing food service workers can do to reduce the spread of infectious diseases. The use of hand sanitizers is not a substitute for hand washing. Hand washing is also very important before putting on disposal gloves. Wearing plastic or latex disposable gloves causes hands sweating and the sweat contains millions of bacteria. Therefore, it is critical that when changing the gloves, hands are thoroughly washed before putting on new gloves. Hand washing stations shall not be kept clear and be supplied with hand soap, paper towels and a waste bucket. Proper hand washing is very important especially when: entering the kitchen, using restroom, after sneezing, coughing, touching hair or body, touching aprons or clothing, after smoking, eating or drinking, handling raw foods, after handling garbage or soiled equipment, cleaning tables or touching dirty dishes, after touching not sanitized surfaces, handling chemicals, before and after the use of disposable gloves. In restaurants is extremely important to be aware of dangerous diseases and contagious sicknesses. Every case of sickness should be reported to the head of department immediately. All working surfaces in the restaurant should be sanitized with appropriate disinfectants before and after each meal. Ready to eat

meals should be touched with disposable gloves only that are changed each time interruption or task changing occurs. Food needs to be cooked thoroughly and the internal temperatures should be measured prior to service. In the dishwashing area, two dishwashers need to operate at all times, one strictly for dirty and one for handling the clean dishes. All tableware that was used by infected guests, should be pre-soaked and pre-flushed prior to load into dish washer. All food that was served on the buffet should be thrown away, not reused for personnel meals.

6. OTHER PERSONAL HYGIENE CONCERNS

Food handling personnel must:

- keep their fingernails trimmed, filed and clean
- not wear jewelry, except a plain wedding band
- not wear watches.

Wearing clean outer clothing prevents contamination of food and contact surfaces. Food handling personnel should never eat, drink or smoke in the food preparation, storage or service areas. Hair restraints such as hats, hair coverings or nets must be worn to keep hair from contaminating food and food contact surfaces.

7. EMPLOYEE HEALTH

Food handling personnel who have conditions or symptoms of boils, open sores, infected wounds, diarrhea, jaundice, fever, vomiting, sore throat with fever or discharges from the nose or mouth shall report these conditions or symptoms to the medical staff and shall be restricted from the work with exposed food, ware washing, clean equipment, utensils, linens

and unwrapped single-service and single-use articles.

Food handlers experiencing persistent sneezing, coughing or a runny nose that causes discharges from the eyes, nose or mouth may not work with exposed food, clean ware washing equipment, utensils, table linens or unwrapped single-service or single-use articles.

The restriction may be removed when the person in charge of the food operations obtains written approval from the physician or equivalent medical staff.

8. WARE WASHING

Ware washing means the cleaning and sanitizing of utensils and equipment that come in contact with food.

Utensils are considered to be the tools that are used in order to prepare food and will be cleaned in a sink or automatic machine, such as:

- pots and pans
- glasses, plates
- knives, forks, spoons
- dishes, etc.

Equipment is considered to be the larger things being used in food preparation process that are too big to be washed into the sinks and machines and therefore must be cleaned-in-place, such as:

- slicers
- mixers
- worktables
- reach-in refrigerators.

The most important is to know and understand the difference between cleaning and sanitizing. Cleaning means removal of all visible dirt such as food particles, grease and other visible substances.

Sanitizing means the reduction of 99.99% of all living micro organisms (germs).

Food contact surfaces of equipment and utensils shall be cleaned to sight and touch:

- before each use with a different type of raw animal food such as beef, fish, lamb, pork or poultry
- each time there is a change from working with raw foods to working with ready-to-eat foods
- between uses of raw fruits and vegetables and potentially hazardous foods
- before using or storing a food testing thermometer
- at any other time contamination may have occurred.

9. PROPER FOOD STORING

Another important point is how to properly store the food in the refrigerators. Food should be stored on the proper temperature and separated so the cross contamination is prevented. Use of labels with expiration date and product name is mandatory. When storing new load of supplies, FIFO system should be respected (first in-first out). When handling the food

in the kitchen, different cutting boards should be used for different types of food. There are six different colors of cutting boards meant to be used for different supplies. Dish washer and ice machine are to be cleaned properly and as often as specified.

10. CONCLUSION

There is a connection between quality of products and services, consumer's satisfaction and organization profitability. High quality level results in the high level of consumer's satisfaction, what supports higher prices and often low expenses. Also, programs of quality improvement influence the profitability improvement. As a result of globalization and international trade, customers around the world are demanding safe and wholesome food products. As a result, food processing companies around the world are implementing food safety management systems to ensure the production and distribution of safe foods.

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