HACCP

The Hazard Analysis and Critical Control Point (HACCP) system is internationally accepted as the system of choice for food safety management. It allows predicting risk to food safety and preventing them before they happen.

HACCP is an evaluation system to identify, monitor, and control contamination risk in a foodservice establishment.

Basic HACCP PROCEDURES:

1. Identify potentially hazardous foods and sensitive ingredients
2. Find sources and specific points of contamination
3. Determine the potential for microorganisms to survive a heat process and multiply at room temperature during hot and cold storage.

HACCP is based on the following 7 principles:

1. Identify any hazards that must be prevented, eliminated, or reduced

   **Hazard:** any biological, chemical, or physical property that may cause an unacceptable consumer health risk.

   **Biological hazards:** bacteria, virus, parasites, fungi, molds, yeasts.

   **Chemical hazards:** pesticides, additives and preservatives, toxic metals, foodservice chemicals.

   **Physical hazards:** nails, staples, metal shavings, etc.

   **Risk:** probability that a condition or conditions will lead to hazard.

2. Identify the critical control points (CCPs) at the steps at which control is essential

   **CCP** is defined as a point, step, procedure in which a food safety hazard can be prevented, eliminated or reduced.

   Examples: hygiene, prevention of cross-contamination (storage of raw materials with ready to eat foods, employees practices leading to cross-contamination, preparing raw food at same time and in same work area with cooked food, employees working who have flulike symptoms), etc.

   **Potential food safety hazards:** Improper hot or cold storage (foods stored at improper temperatures, food thawed at room temperature, coolers and display units without thermometers, storage of food in improper holding containers, etc).

3. Establish critical limits at CCPs

   **Critical limits:** is defined as the criteria that must be met for each preventive measure associated with a CCP.

   Critical limits may be set for preventive measures such as temperature, time, physical dimensions, humidity, moisture level, water activity, pH, acidity, salt concentration, available chlorine, preservatives, or sensory information (texture, aroma, visual appearance).
4. Establish procedures to monitor the CCPs

**Monitoring** is a planned sequence of observations or measurements to assess whether a CCP is under control and to produce an accurate record for future use in verification (examples: time, temperature, etc.). **Monitoring CCPs**: physical measurements (time and temperature logs), visual observations (watching worker practices, inspecting raw materials, sensory evaluations (smelling for off-odors, looking for off-colors, feeling for texture), chemical measurements (pH or acidity, water activity salt content).

5. Establish corrective actions to be taken if a CCP is not under control

The HACCP plan shall identify the corrective action to be followed in response to a deviation from a critical limit.

6. Establish procedures to verify whether the above procedures are working effectively

**Records**: documentation is needed to record measurements that show standards are being monitoring.

**Example**: time/temperature logs and graphs, flow charts, corrective actions, listing the HACCP team members, and assigned responsibilities, etc

7. Establish documents and records to demonstrate the effective application of the above Measures

Establishment of appropriate verification inspection schedules; review of the HACCP plan; review of CCP records; review of deviations and dispositions; visual inspection of operations to observe whether CCPs are under control; random sample collection and analysis; review of critical limits to verify that they are adequate to control hazards; review of written record of verification inspections covering compliance, deviations, or corrective actions taken; review of modifications of HACCP plan.