Hazard Analysis Critical Control Point (HACCP) System

In a nutshell: The HACCP system is a systematic and scientific approach to identify, assess and control hazards in the food production process. It identifies potential hazards and measures for their control to ensure the safety of food produced. Throughout the food chain from primary production to final consumption, every stage (from purchasing, receiving, transportation, storage, preparation, cooking to serving) should be carried out and monitored carefully. The proper implementation of the HACCP system can help ensure safe food production.

The HACCP system can be applied throughout the food chain. The seven principles of the HACCP system are:

Principle 1: Conduct a hazard analysis by identifying potential hazards and control measures

We collect and evaluate information on hazards identified in raw materials and other ingredients, the environment, in the process or in the food, and conditions leading to their presence to decide whether or not these are significant hazards and consider any measures to control identified hazards.

Principle 2: Determine critical control points (CCPs)

A critical control point is a step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level. Common critical control points include cooking, cold holding and hot holding.

Principle 3: Establish validated critical limits for each CCP

Critical limit is a criterion which separates acceptability from unacceptability of the food. Critical limits should be scientifically validated to prove that they are capable of controlling hazards to an acceptable level if properly implemented. Criteria often used include measurements of time, temperature, humidity, water activity and pH value and sensory parameters such as visual appearance and texture.

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> ### Principle 4: Establish monitoring system for each CCP
> Monitoring is a planned sequence of observations or measurements to assess whether a critical control point is under control and to produce an accurate record for future use in verification. Measurement of temperature are some of the examples.
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> ### Principle 5: Establish corrective actions
> Corrective action is a specific action taken when the results of monitoring at the critical control point indicate that the limit cannot be met, i.e. a loss of control. Problems should be corrected before they affect food safety.
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> ### Principle 6: Validate the HACCP plan and establish verification procedures
> The HACCP plan should be validated before implementation. A review should be taken to ensure that all elements of the HACCP plan is capable of ensuring control of the significant hazards relevant to the food business. Validation can include a review of scientific literature, using mathematical models, conducting validation studies or using guidance developed by authoritative sources.
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> Verification activities include the application of methods, procedures, tests and other evaluations, in addition to monitoring, to determine whether the food production process complies with the HACCP plan .
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> ### Principle 7: Establish documentation and record keeping
> Maintaining proper HACCP records is an essential part of the HACCP system. HACCP procedures such as hazard analysis, CCP determination and critical limit determination should be documented.

Click here for more information on the HACCP system.

Food Safety Plan

The HACCP system has been adopted worldwide by many food manufacturing companies. However, a classic HACCP system is generally considered difficult to implement in the food service organisations due to multiplicity of food products and lack of standardised methods. Food service organisations, however, can still devise and implement a suitable food safety plan based on the principles of HACCP. Such a safety plan must include a hazard analysis that addresses its control measures more broadly. Basic activities include: cleaning and sanitation, personal hygiene, pest control, waste disposal, staff training and handling customer complaints.

Click here for more information on how to implement a food safety plan.