

HACCP: An Overview¹

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HACCP is a food safety management system that is increasingly utilized in all aspects of the food industry. The objectives of this fact sheet are to introduce the topic and to summarize the key components of a HACCP program.

What is HACCP?

HACCP is a system that relies on process controls to minimize food safety risks in the food processing industry. The acronym HACCP (pronounced /'hæ-sip/) stands for "Hazard Analysis Critical Control Point". It is useful to think of HACCP as a preventative food safety system, and not a traditional quality control inspection system. HACCP is not "zero risk" and does not eliminate the possibility of a hazard getting into the food product. Rather, HACCP attempts to decrease that possibility to an acceptable level.

How Does HACCP Work?

Significant hazards for a particular food product are identified after a review of all the processing steps and use of scientific information. The steps at which these hazards can be controlled are identified, and critical limits, such as process temperatures and hold times, at key process steps are set. Monitoring procedures are implemented to evaluate conformance with these critical limits. Should the process fall outside these limits, pre-planned corrective actions are taken to prevent the potentially defective product from entering the commerce stream. In addition, the HACCP system relies on extensive verification and documentation to assure that food safety has not been compromised during any step. Thus, HACCP provides a risk assessment structure for putting controls in place to minimize such risks.

HACCP History

HACCP is not a new system. The concept was developed in the 1960s by the Pillsbury Company, while working with NASA and the US Army Laboratories to provide safe food for space expeditions. The limitations of end product testing became evident to those who were trying to provide the safest possible food products. In order to ensure that food used for space missions would be safe, almost all the product manufactured would need to be tested, leaving very little for actual use. A new approach was needed. The practical and proactive system of HACCP evolved from these efforts to understand and control food safety failures. HACCP has been widely used by industry since the late 1970s, and is now internationally recognized as the best system for ensuring food safety. It is endorsed by the Food and Agricultural Organization (FAO) and the World Health Organization (WHO) of the United Nations, and, in the United States, by the National Advisory Committee on Microbiological Criteria for Foods (NACMCF).

HACCP and Food Regulation

The US Food and Drug Administration (FDA) used HACCP-based principles in the development of low-acid food canning regulations in the 1970s. In 1995, the FDA issued regulations that made HACCP mandatory for fish and seafood products, and in 2001 they issued regulations for mandatory HACCP in juice processing and packaging plants. In addition, a voluntary HACCP program was implemented in 2001 for Grade A fluid milk and milk products under the cooperative federal/state National

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Future of HACCP

Domestic and international food regulators have increasingly focused on HACCP as a mandatory requirement for food processors and food handlers. As a result, HACCP or HACCP-type systems will likely be required in additional segments of the food system, including retail operations, fruit and vegetable packers, and production operations.

HACCP is a tool for managing food safety, and it is important to note that merely legislating HACCP does not guarantee food safety. For HACCP to be truly effective in a food handling or processing facility, the HACCP plan must be properly developed, effectively deployed, and continuously reviewed and improved.

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