

Implementation of the Mega Reg

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Introduction

On July 25, 1996, the long-awaited "Pathogen Reduction; Hazard Analysis and Critical Control Point (HACCP) Systems;" final rule was published by the USDA. This rule is commonly referred to as the "Mega Reg," probably because it was a major attempt at rewriting the rules, regulations, and guidelines under which federal meat inspection is carried out. The mega reg is the beginning of shifting the principles of meat inspection from a system relying almost solely on organolyptic methods to one incorporating science with organolyptic methods. While the current system relies heavily on FSIS inspectors to detect and correct establishment food safety problems, the new regulations will move that responsibility to the establishment management. The Hazard Analysis and Critical Control Point (HACCP) system is the method mandated for the meat industry to use under the new final rule. FSIS's stated goal under the new rule is as follows:

"FSIS believes its food safety goal should be to reduce the risk of foodborne illness associated with the consumption of meat and poultry products to the maximum extent possible by ensuring that appropriate and feasible measures are taken at each step in the food production process where hazards can enter and where procedures and technologies exist or can be developed to prevent the hazard or reduce the likelihood it will occur (60 FR 6785)."

As a part of the final rule, FSIS also clarified and outlined the responsibilities of establishments for maintaining effective sanitation programs, following sound food safety procedures, and producing solid food safety performance results.

Key Points of the Mega Reg

- Mandated SSOP's (Sanitation Standard Operating Procedures) adopted, January 27, 1997.
- Mandated performance criteria based on *E.coli* testing of carcasses adopted January 27, 1997.

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- Mandated written HACCP system adoption. Plants will be phased in depending on size, large plants (> 500 employees) in January '98; Medium-sized plants (10 to 499 employees) in January '99; and small plants (< 10 employees) in January of 2000.
- Mandated FSIS inspection performance standard based on *salmonella* incidence levels dependent upon species and/or raw ground product.

HACCP Development

Before a HACCP system for food safety can be implemented, it must be designed, developed, and put in the form of a plan. According to the mega reg, the following must be done as a part of the design and plan development:

- I. All establishments shall conduct, or have conducted for them, a hazard analysis to determine the food safety hazards that may occur in the production process. Preventative measures must also be defined that reduce or control the identified food safety hazards.
- II. Flow charts must be done that describe the steps of each process and the product flow in the establishment. The products produced, their intended use, and/or consumers of the finished product will be identified.
- III. HACCP plans will be developed and written by the establishment for each product or similar groups of products produced by that plant.
 - A. A single HACCP plan may encompass multiple products within a processing category if the hazards, critical control points (CCP's), critical limits and procedures required are essentially the same.
- IV. HACCP plans must include a list of the following:
 - A. The food safety hazards identified. These may be chemical, microbiological and/or foreign material.
 - B. The critical control points for each of the identified food safety hazards.
 - C. The critical limits that must be met for each critical control point.
 - D. The monitoring procedures for all critical control points and the frequency of monitoring for each.
 - E. The corrective actions that have been developed and are to be followed if critical limits are exceeded.
 - F. A record-keeping system that documents the monitoring of the critical control points.

- G. The verification procedures and the frequency that each will be performed.
- V. The HACCP plan, once written, will be signed and dated by the responsible establishment official. This will be done upon each of the following occurrences:
 - A. Upon initial acceptance.
 - B. Upon any modification.
 - C. At least annually, following a required reassessment.

Implementation

Implementation is defined as “to put into practice, carry out.” This becomes the challenge following the design, development and the writing of the HACCP plan. What is the most effective way to get it implemented? There is no “one” effective method of implementation; however, there are several key points that are common in the implementation of any plan. These key points include the following:

Management Support

Senior management must approve and support an organized plan of HACCP implementation. The commitment of senior management is crucial to successful implementation. Attempting to implement a plan without that support is largely a waste of time, money, and effort. Target dates for implementation should also be established. This emphasizes management’s commitment to HACCP implementation and gives a clear signal to all employees involved of their expectations.

HACCP Team

Once senior management support is obtained, a HACCP implementation team and a HACCP coordinator should be named. The members of this team should be from multiple disciplines. Each job family with a stake in producing and/or selling the products being made should be represented on the team. A HACCP team representing all disciplines gives maximum input of ideas on plan implementation as well as causing “ownership” of the project to be shared by all. Team members should be experienced in their respective areas of expertise, have good supervisory skills, and have had experience in implementing major projects.

Education/Training

The HACCP team and coordinator must be trained and completely familiar with the HACCP system before attempting to implement the plan. One of their responsibilities and a vital part of implementation is to educate all employees about HACCP and its use. Every employee in a food plant should have a basic understanding of the use of a HACCP system for preventing food safety problems. Those directly involved in monitoring or verifying a critical control point should understand the hazard(s) being controlled, the critical limits, and what actions are to be taken if the critical limits are violated. The actual production employees knowl-

edge and commitment to making a HACCP system work is critical if it is to be effective.

Training and educating all employees in the facility must occur. Employees should be empowered to initiate a corrective action any time they witness a food safety problem. When they become involved, safer food will be produced and new ideas will be generated to continually improve the HACCP plan.

Developing the Monitoring Documents/Procedures

The employees who will actually have to perform the monitoring, along with their supervisor, should be involved in the development of the monitoring documents and procedures. By involving them, the document will tend to be useable, easy to fill out, and easily understood by the person doing the monitoring. Likewise, the procedures that are developed are more apt to be the actual ones used. The most important thing to remember in developing the monitoring documents and procedures is to keep them as simple and easily used as possible.

Records

A vital part of implementing a HACCP system is to develop a system of collecting, organizing, and maintaining the documentation records generated. Without this, a HACCP system is incomplete. The manner in which this is done is dependent upon management. In some cases, facility size, layout, and/or number of employees may dictate that records are maintained at more than one site. The important thing is that a system is in place, functional, and can be easily accessed as needed by either plant and/or regulatory personnel.

Going Operative

In the implementation of a HACCP, it is advisable to first identify one critical control point (CCP) in one HACCP plan and then perform a trial run. This will allow the HACCP team and the responsible employees the opportunity to focus on any potential problems that may evolve unexpectedly. Once the successful implementation of the first CCP has occurred, any remaining CCP’s in that HACCP should be implemented one at a time until the entire HACCP plan for that product is in place. This allows the HACCP team and employees to identify potential implementation problems and to hopefully avoid them as later HACCP plans are added. Assuming there is adequate time, the HACCP team may prefer to implement each product-specific HACCP plan one at a time until the entire system is in place. Regardless of the implementation schedule, a trial run implementing the simplest plan first is recommended.

Recall System

An important part of any HACCP food safety system is one of having a product recall method in place. This neces-

sitates that all product is code dated such that production date and time is on the product package and/or box. Management must decide how this is to be done. Key considerations in making this decision include: 1) How likely is there to be a food safety problem with this product? 2) How much product do you want to risk having to recall? For example, in raw beef products, ground beef is more likely to be involved in a recall than whole-muscle subprimals. Thus, a facility may want to break the production run of ground beef into small lots so that a recall could potentially be confined to an hour or less of production. Since whole-muscle subprimals are rarely involved in a recall, these may be code-dated in such a manner that if a recall was necessary, an entire shift of production would be involved.

Summary

HACCP system implementation is the putting into use of a written plan of process control. It is essential that the senior management of a company send a clear message on

the importance and their endorsement of the HACCP system if it is to be implemented effectively. Senior management should name a HACCP team and team leader (HACCP Coordinator) and clearly commission them to implement the system. A key ingredient in a successful implementation is the education and training of all employees who will be in any way involved with the HACCP system of food safety.

Product safety is essential to the long term viability of a company and to the industry the product comes from. Making it safe must occur on the production floor and the employees who produce it are the individuals who make that happen. Management has the responsibility to provide employees with the tools to produce safe product and also to empower them in utilizing the HACCP system to ensure safe food results. This entire process of implementing and using a HACCP system to ensure the integrity of product safety is a team effort and mandates the involvement of everyone associated with its production.