Chapter 10

Preliminary steps in HACCP implementation

Mrs. Priya.E.R and Dr.Laly, S. J.

Quality Assurance and Management Division ICAR-Central Institute of Fisheries Technology

Preliminary steps are those steps that need to be completed before applying HACCP principles. These steps involve gathering information about the products and the process that need to conduct a hazard analysis. The preliminary steps in developing the HACCP plan are as follows:

- 1. Assemble HACCP team
- 2. Describe the product, intended use and consumers
- 3. Develop a Process Flow Chart
- 4. Develop a Process Description

Assemble HACCP Team

Assembling a HACCP team is an important step in building a HACCP plan. The team should consist of individuals with different specialties and experience with the process. The HACCP team should include members who are directly involved with the plant's daily operations. The team may include personnel from maintenance, production, sanitation, quality control and laboratory. The team develops the HACCP plan, write SCPs, and verify and implement the HACCP system. Hence, the HACCP team members should be knowledgeable about food safety hazards and HACCP principles.

In addition to writing and developing the HACCP plan, the HACCP team should provide oversight of the implementation of the plan into the daily operations of the facility. This includes ensuring that applicable personnel are trained appropriately to handle their required duties. Although one person may be able to analyze hazards and develop a HACCP plan successfully, many companies find it helpful to build a HACCP team. When only one person develops the HACCP plan, some key points can be missed or misunderstood in the process. The team approach minimizes the risk that key points will be missed or that aspects of the operation will be misunderstood. It also encourages ownership of the plan, builds company involvement and brings in different areas of expertise.

In small companies, the responsibility for writing the HACCP plan may fall to one person. Small companies can build their HACCP team with employees knowledgeable of various divisions, as well as owners, as members of the HACCP team.

Describe the product, intended use and consumers

The HACCP team should describe the product(s), the type of packaging, the method of distribution, the intended customer (e.g., general public, infants, elderly) and likely use of the product

(e.g., consumed without further cooking, heat-and-serve, cooked). A complete product description should include:

- 1. Types of seafood products (species and finished product form)
- 2. Sources of seafood products (wild, farm raised, from fisherman or from a processor)
- 3. How products are received, stored and shipped (refrigerated, frozen, canned etc.)
- 4. How products are packaged (e.g. reduced oxygen package)
- 5. How products are intended to be used (ready-to-eat, to be cooked by consumers etc.)
- 6. Who the intended consumers of your products are (general public, higher risk group)

Types of seafood products:

It is important to know which species (species of fish or shellfish including market name and scientific name, if necessary) are being processed in order to accurately identify potential food safety hazards. For the same reason, it is important to know the finished product form (e.g., raw, cooked, pasteurized, smoked, etc.)

Sources of seafood products:

It is important to know where the product is purchased to identify the correct potential food safety hazards – whether the product is purchased directly from the fisherman or harvest vessel; directly from the aquaculture grower or farm; from another processor; or from a combination of these sources.

Receiving, storage and shipment of product:

Identify how the fish are received/stored/shipped viz., fresh – under refrigeration; fresh – under ice or chemical coolant; frozen; canned or shelf-stable; more than one of these methods, in order to control the temperature and time for the production of safe and wholesome final product.

Packaging of the product:

It is important to know how products are received, stored, packaged, and shipped (air-permeable packaging/ reduced-oxygen packaging) to identify any potential food safety hazards during the hazard analysis.

Intended use of the products:

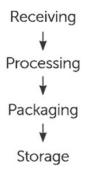
It is important to know how the product will be consumed (to be cooked by the consumer; ready-to-eat (RTE) raw; RTE – cooked, RTE – partially cooked; RTE – heat and serve; RTE- reheat) to identify any potential food safety hazards.

Intended consumers:

Intended consumer information needs to identify whether the end user will be the general public or a specific at-risk consumer group such as infants and the elderly. This will be relevant when identifying potential hazards during the hazard analysis.

Develop a Process Flow Chart

A flow chart provides an important visual tool that the HACCP team can use to identify and describe the process. When developing a process flow chart, it is important to include all the process steps within the facility's control from receiving through final product storage, including reworked product if applicable. Since the accuracy of the process flow is critical to conduct a hazard analysis, the steps outlined in the chart must be verified at the plant. If a step is missed, a significant food safety hazard may be missed. The HACCP team should walk through the facility and make any changes required in the flow chart. The walk-through allows each team member to gain an overall picture of how the product is made. The following is an example of a basic flow chart:



Develop a Process Description

A written process description can be a useful tool to explain what happens at each of the process steps needed to produce a product covered by a particular HACCP plan. This description can be used as a working reference for the development of the HACCP plan and to facilitate communication with company personnel and regulators. It is also important to know what occurs at each process step viz., the maximum length of time that the product could be exposed to unrefrigerated temperatures, the maximum room air temperature, or the maximum internal product temperature etc., to conduct an accurate hazard analysis.