Hazard Analysis Critical Control Point
In Small Plant Operations

Mark Schad
Schad Meat, Inc.
HAZARD ANALYSIS CRITICAL CONTROL POINT IN SMALL PLANT OPERATIONS
UNIQUENESS OF THE SMALL PLANT

- The Owner is the Individual
- Individually Responsible for Food Safety and Their Operations
- Individually Committed to Food Safety and Their Operations
RESPONSIBILITY AND COMMITMENT

1. Individual or Family Name may be on the product or the Individual’s name is associated with the Product

2. Consumer, both wholesale and retail, may connect directly with the responsible individual not a customer service rep

3. Failure of food safety has a direct impact on the individual and their business
Prior and in addition to HACCP, small plant owners manage:

1. Purchasing
2. Processing
3. Marketing
4. Selling
5. Plant Maintenance
6. Human Resources

All of which feed into a comprehensive functioning Food Safety System.
CHARACTERISTICS OF SMALL PLANTS

- Lower Volume
- Variety and number of products processed has historically been higher
- Employees are better known to management and turnover is usually less
- Plant size is less extensive
LIMITED RESOURCES OF THE SMALL PLANT

1. Human
2. Financial
3. Technology
4. Time
5. Suppliers
SMALL PLANT METHODOLOGIES

- Has to rely on preventing the defect from coming into the plant
- May often choose to have one supplier who can supply product which is not defective
- Has to insure Food Safety without the advantages of finance and technology
HACCP, A FOOD SAFETY PROGRAM

7 Principles

(1) Hazard analysis
(2) Critical control point identification
(3) Establishment of critical limits
(4) Monitoring procedures
(5) Corrective actions
(6) Record keeping
(7) Verification procedures
PRINCIPLES

7 PRINCIPLES OF HACCP

HAZARD ANALYSIS
Identify the Product and the Process

HAZARD ANALYSIS
Determine Where the Hazards are by Looking at Each Step in the Process and Is it Reasonably Likely to Occur

CRITICAL CONTROL POINT ID
Identify if the Hazard Can be Reduced or Eliminated at Each Step

CRITICAL LIMIT
Determine the What Will Reduce or Eliminate the Hazard

MONITORING
Define how the Critical Limit will be monitored, the frequency and by who do the monitoring

CORRECTIVE ACTIONS
Stop product from going into commerce. Determine what cause the failure. Determine what can done with the product to correct the deficiency and the product disposition. Determine how to prevent it from happening in the future.

VERIFICATION
Define what needs to be verified. Person did the correct observation or measurement? Is the record correct? Is the instrument used correct?

VALIDATION
Analysis and Plan needs to be validated over time and re-assessed

RECORD KEEPING
(every time) Record the Limit, with the date, the time and your initials or signature.
HACCP CHALLENGES

In many cases, plant management in the small plant does not have the background required for development and maintenance of Hazard Analysis, HACCP plans, pre-requisite programs, microbial programs and scientific documentation as required by FSIS at the current time.
TRAINING AND UPDATED INFORMATION CHALLENGES

- The cost of the initial training is not the big obstacle.
- The routine and frequent changes and updates relating to HACCP are a challenge on a day-to-day basis.
THE HAZARD ANALYSIS

1. Identifying the Product and Process Steps are not difficult.
2. Once the hazards have been identified, the challenge is justifying how the hazard(s) are addressed.
   - If it is not a hazard
   - If it is a hazard

Supporting Documentation is required.
SUPPORTING DOCUMENTATION CHALLENGES

1. Access to Technology
2. Access to the document even when you know it exists
3. Existing Compliance Guidelines that may be appropriate to use, but must be followed exactly
4. Suggestion of use of a challenge study – not practical based time and cost
Inspection personnel may not understand components of the hazard analysis and HACCP plans and try to make the plant make changes in the programs.

The inspector’s understanding changes from inspector 1 to inspector 2.

Compliance Guidelines are frequently considered by in-plant inspection personnel to be regulations.

Small plants frequently do not feel they have the ability (TIME AND MONEY) to challenge local inspection.
MONETARY CHALLENGES

- Sampling (Laboratory) Programs
  1. Pre-requisite programs to justify why something is not a hazard
  2. Validation and verification of microbial testing, pH, water activity
- Access to Technological Interventions
VALIDATION AND VERIFICATION CHALLENGES

- Direct observation of measurements when there is only one person in the plant
- Verification every time due to the infrequency of the process
- Re-assessments that are caused by large plant failures
Meeting regulatory requirements which were clearly developed with the big plants in mind, Listeria Control Program.

Using Guidance Documents, again with the big plants in mind, Food Defense Self-Assessment Checklist and Plan documents.
GLOBALIZATION AND THE SMALL PLANT

- Can be affected by globalization (through a trickle down effect), but frequently this affect may not be recognized
  - imported raw materials may be financially advantageous
  - exports generally can not be achieved due to low volume and expense
GLOBALIZATION AND THE SMALL PLANT, CONT.

- small plants are meeting the global food safety standards
- national and international terrorism and other attempts at adulteration
SMALL AND VERY SMALL PLANTS

- Are Numerous – approximately 80% of the total plants
- Continue to manage the Challenges presented by HACCP
- Have comprehensive and functioning food safety systems supported by the natural foundation of the small business
- Are important to the economy
SMALL AND VERY SMALL PLANTS

ARE PASSIONATE ABOUT AND DELIVER SAFE FOOD