



## Applying HACCP Validation and Verification At Retail

### Background

Local Environmental Health Specialists need knowledge of specialized processes at the retail level, in addition to general knowledge about HACCP plans, to be effective food safety regulators. These specialized processes, which include fermentation, acidification, reduced oxygen packaging, cook-chill, sous vide and more are growing in popularity at the retail level. Reasons for this include the growth of the farm to fork and local foods movement, an increase in the cost of food, more advanced educational techniques among culinary professionals, the global scope of our retail food industry and desire for specific ethnic products and specific flavor and texture preferences. Many courses have been designed and delivered to provide a microbiological background on the hazards associated with these processes, as well as the principles of HACCP as it relates to the retail food industry.

This unique course has been designed, using hands on and interactive methods, to build on these foundational principles and to provide training in applying these principles. The overall goal of this course is to provide local Environmental Health Specialists the tools and knowledge to identify these special processes, review submitted documentation for a HACCP plan, and gain a working knowledge of these processes to better help operators of retail food establishments.

### Day One

The first day of this course reviews background information on HACCP plans, specifically the role in retail food establishments as outlined in the most recent FDA Food Code. The course developers will also provide information on how to tailor this curriculum to the current regulatory requirements of the jurisdiction. Background information on variance and HACCP plan requirements per the Code are discussed and compared to processes that do not require a HACCP plan or variance but may be confused with a specialized process. The concepts of validation and verification are defined and discussed, along with the regulator's role in these concepts. The first day of this course also includes application of the concepts of critical control points, critical limits and prerequisite programs through hands on development of several food flow diagrams and demonstrations of acidification with sushi rice.

### Day Two

The second day of this course is designed to be hands on and to provide a working knowledge of the following specialized processes: fermentation, acidification, reduced oxygen packaging, dehydration and sous vide. These products will be prepared during the course using a provided recipe from a sample HACCP plan. Additional exercises for each specialized process will be completed to reinforce Day 1 concepts, including



preparing food flow diagrams and identifying critical control points, critical limits and Standard Operating Procedures for each process. To ensure equal participation, the class is divided into four smaller groups.

This course is designed to help jurisdictions in the Voluntary National Retail Regulatory Program Standards with elements of several different standards. The course addresses Standard 2 in providing educational training for regulatory staff, as well as preparing staff for the verification exercise that must be completed in Standardization. The course addresses Standard 3 in providing information to help the jurisdiction develop the Verification and Validation of HACCP Plan Policy. Also, having staff that can identify and evaluate the implementation of HACCP Plans assists in meeting Standard 4.

### Course Objectives

- 1) Educate local Environmental Health Specialists to identify specialized processes at retail, and whether they require a variance and/or HACCP plan.
- 2) Increase the confidence of local Environmental Health Specialists in identifying and reviewing HACCP plan components, including food flow diagrams, critical control points, critical limits and prerequisite programs.
- 3) Define validation and verification as it relates to retail HACCP, and identify the regulatory responsibility in each of these parts of HACCP plan implementation.
- 4) Provide hands on training for the following specialized processes: fermentation, acidification, reduced oxygen packaging, dehydration and sous vide, which will include preparation of foods using these methods.
- 5) Reinforce knowledge of the specific specialized processes by completing food flow diagrams, identifying critical limits and corrective actions and developing standard operating procedures.

### Course Instructors

Dr. Ben Chapman, NC State University

Natalie Seymour, NC State University

Veronica Bryant, NC Department of Health and Human Services

### Outcomes

This course will be delivered in the regulatory jurisdiction and will lead to local Environmental Health Specialists who can identify and work through special processes in retail, providing support to industry to achieve long term compliance with the FDA Model Food Code. This course will provide needed background information and training to help local regulatory jurisdictions develop policies for validation and verification of HACCP Plans. This course will also lead to increased awareness of these specialized processes at retail so that they can be identified and brought into compliance with the FDA Model Food Code.



### **Measuring Outcomes**

The course developers use pre- and post-class evaluations to measure course effectiveness. Data will be collected on the number of trainings, trained staff and HACCP plans submitted to the jurisdiction before and after the course. Analysis of this data will be used to assess that knowledge is being properly applied.

### **Continuing Resources**

All electronic resources from the class will be made available to participants via an NC State website. All participants will have access to resources as they are updated and so benefit from the growth of the course. Participants will also gain access to an online community listserv that encourages collaboration across the country.

### **Program Contacts**

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