HACCP-Based Specialized Processes for Retail Food

Presented by

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President

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Goal

The overall goal of this presentation is to provide an increased awareness of specialized processes at retail food establishments that require a HACCP plan so they can be identified and brought into compliance with current regulations.
Objectives

• Identify specialized processes that require a HACCP plan under 105 CMR 590.000: State Sanitary Code Chapter X: Minimum Sanitation Standards for Food Establishments

• Recognize if a retail food establishment is conducting one or more specialized processes during an inspection

• Determine regulatory action to be taken if a retail establishment is conducting one or more specialized processes without prior approval and/or a HACCP plan
A HACCP plan is required for all specialized processes

- Smoking* food as a method of food preservation rather than as a method of flavor enhancement Pf
- Curing* food Pf
- Using food additives or adding components such as vinegar (i.e. sushi, fermentation): Pf
  (1) As a method of food preservation rather than as a method of flavor enhancement
  (2) To render a food so that it is not a time/temperature control for safety food (TCS)
- Packaging TCS food using a reduced oxygen packaging method (ROP)
- Operating a molluscan shellfish life-support system display tank used to store or display shellfish that are offered for human consumption (must obtain additional variance for wet storage systems from DPH (105 CMR 500.021(D))) Pf
- Custom processing animals that are for personal use as food and not for sale or service in a food establishment Pf
- Sprouting seeds or beans Pf
- Preparing food by another method that is determined by regulatory authority to require a variance (such as drying*, which could render the food shelf stable) Pf

*We will often see overlap in these processes curing/drying/smoking, curing/smoking, etc.
## Processes Requiring a HACCP Plan

<table>
<thead>
<tr>
<th>Process</th>
<th>Variance Required</th>
<th>HACCP Plan Required</th>
<th>Variance Exception</th>
<th>HACCP Plan Exception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking to preserve food or extend shelf life</td>
<td>YES</td>
<td>YES</td>
<td>Smoking for flavor enhancement, color, or part of the cooking process</td>
<td>Smoking for flavor enhancement, color, or part of the cooking process</td>
</tr>
<tr>
<td>Curing</td>
<td>YES</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adding food additives or components to render food non-TCS or extend shelf life (i.e. acidification, fermentation)</td>
<td>YES</td>
<td>YES</td>
<td></td>
<td></td>
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<tr>
<td>Operating Live Molluscan Shellfish System</td>
<td>YES</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Custom Animal Processing</td>
<td>YES</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sprouting</td>
<td>YES</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced Oxygen Packaging (ROP)</td>
<td>YES/NO</td>
<td>YES</td>
<td>Methods under 3-502.12 with validated process</td>
<td>Methods under 3-502.12 with validated process</td>
</tr>
<tr>
<td>Other Methods (like drying)</td>
<td>YES</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(1) TCS food that is packaged using ROP method, maintained at 41°F or less and

Has a water activity of .91 or less;

Has a pH of 4.6 or less;

Is a meat or poultry product cured at a food processing plant; regulated by the USDA; or

Is a food with a high level of competing organisms
HACCP Plan – No Variance

(2) Fish that is frozen before, during, and after packaging using a ROP method (3-502-11)

(3) Food that is prepared and packaged using a cook-chill or sous vide method (3-502-11)

(4) Specific cheeses that are packaged using a ROP method (3-502-11)

(5) Juice packaged in a food establishment without a warning label (3-404.11)

(6) Unpackaged juice prepared in a food establishment serving a highly susceptible population (3-801.11)
Determining if the establishment is conducting a specialized process...

- Start by reviewing the menu
- Look at the obvious equipment
- Look for signs of specialized processes in:
  - refrigerator(s)
  - freezer(s)
  - storage areas
  - areas they seem hesitant to show you
  - areas they say are not under their control
Menu Assessment

Ask specific questions:

• What foods do you make from scratch (prepared on premise)?
• Do you use any special ingredients or equipment?
• Do you have any seasonal items?
• Do you bring in any foods made at your home, or at another location?
• Do you conduct any specialized processes? (Have your list ready)

Note: You have the right to ask for invoices if you are not sure where a product, or an ingredient originated. You also have a right to ask to see a recipe to verify ingredients.
Sample Menu Items

Lomo Margherita *(cure)*
*Cured Pork Loin, San Marzano Tomatoes, Fresh Mozzarella, Basil*

Pastrami *(cure)*
*Swiss, Deli Mustard, Sauerkraut (fermented)*

Andouille

Smoked Sausage *(cure)*

Little Smokies

Smoked Sausage *(cure)*

Mango Lassi *(homemade yogurt - fermentation)*

Cured Egg Yolks *(additives – no curing salts)*
Recognizing Signs of Specialized Processing
SMOKING
Smoker
This smoker can be mistaken for a BBQ oven

Photo: Home Depot
Smoking or Drying Oven

Check for certification symbol (NSF, ANSI, ETL, UL, etc.)
CURING
Pink Salt
Bacon
ROP & Cure

Photo: VacMaster
Bacon Curing

Photos: The Sausage Maker
Brine Injector Needles
Smoking and/or Curing
DRYING
Drying/Curing KIT
Casing Kit
Beef Jerky

Start of process
Beef Jerky

End of process
Drying and/or Curing
Beef Jerky
Dehydrator

Check for certification symbol (NSF, ANSI, ETL, UL, etc.)
Dehydrator
Commercial drying oven
Drying Cabinet

Check for certification symbol (NSF, ANSI, ETL, UL, etc.)
Drying or Smoking Oven

Check for certification symbol (NSF, ANSI, ETL, UL, etc.)
REDUCED OXYGEN PACKAGING (ROP)

Cook-chill / Sous Vide
Sous vide
Cook-Chill or Sous vide
Cook Chill

Ice Bath
Vacuum Packaging Machines
Tabletop and floor model
ROP

Vacuum packaging machine stored so it’s not obvious
ROP

Small heat sealer
Immersion Circulator & Bath

Photo: Web Restaurant
Immersion Circulator

Calibration test
Blast Chillers
FOOD ADDITIVES
Sushi

Acidification
Kombucha

Fermentation
Kombucha
Yogurt Maker and Starter Culture

Fermentation

Yogurt
Creamy
(Y3)
STORE IN FREEZER

Directions: Heat 1-2 quarts of milk to 185°F, cool to 112°F. Pour into a thermos-like container or Yogotherm. Add 1 packet, let re-hydrate 2 minutes, then stir to dissolve. Cover and let set at 110°F for 6-12 hours, or until thickened. Refrigerate and Enjoy!

For thicker yogurt add ¼ cup dry milk and/or keep milk at 185°F in first step for up to 20 min before cooling.

Contents: Lactose, Milk, S.Thermophilus, L.Delbrueckii subsp. Bulgaricus, Autolyzed Yeast

New England Cheesemaking Supply Company
548 Whately Rd, S.Deerfield, MA 01373 (413) 397-2012
WWW.CHEESEM AKNING.COM
Large Fermenting Bucket
Can make up to 15 gallons
Yogurt

Fermenting in a warm place
KIMCHI

Finished product
SAUERKRAUT
LIVE MOLLUSCAN SHELLFISH LIFE-SUPPORT SYSTEM
Don’t just look for typical “TANKS”
CUSTOM

ANIMAL

PROCESSING
Deer Meat

Photo credit: Brady Miller
CUSTOM PROCESSING

Unsafe practice:
Cross-contamination
CUSTOM PROCESSING

Unsafe practice: Cross-contamination
SPROUTING
Variety of Sprouts

Photo credit: William Keene
Radish Sprouts
Red Clover Sprouts

Photo credit: Wikipedia
Alfalfa Sprouts

Photo credit: Wikipedia
Mung Bean Sprouts

Photo credit: Wikipedia
Broccoli Sprouts
Wheatgrass
Small Scale Sprouting

Beginning Stage
Small Scale Sprouting

Mid stage
Small Scale Sprouting

End Stage
Juice
Packaged Juice with a Warning Label

WARNING
This product has not been pasteurized and, therefore, may contain harmful bacteria that can cause serious illness in children, the elderly and persons with weakened immune systems.

WHole FOODS MARKET
Regulatory Actions for Non-compliance

During the inspection, you discovered that the establishment is conducting a specialized process. What do you do?
Specialized Processes – Applicable Regulations

- 3-502.11 Variance Requirement
- 3-502.12 Reduced Oxygen Packaging Without a Variance, Criteria
- 8-103.10 Modifications and Waivers
- 8-103.11 Documentation of Proposed Variance and Justification
- 8-103.12 Conformance with Approved Procedures
- 8-201.13 When a HACCP Plan is Required
- 8-201.14 Contents of a HACCP Plan
Helpful Resources

Validation and Verification of HACCP Plans in Retail Food Establishments: A Course for Retail Food Regulators
https://core.ac.uk/download/pdf/146675642.pdf

Validation and Verification of HACCP Plans in Retail Food Establishments: A Course for Retail Food Regulators
https://foodsafety.ces.ncsu.edu/retail-haccp/

FDA 312: Special Processes at Retail


NACCHO Sharing Session Specialized Processes-Reduced Oxygen Packaging. April 25, 2018
Validation and Verification of HACCP Plans in Retail Food Establishments

(Food Service and Retail Food Stores)

A Course for Retail Food Regulators

Learner Guide

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Massachusetts Department of Public Health
Revised August 2003
Validation and Verification of HACCP Plans in Retail Food Establishments:
A COURSE FOR RETAIL FOOD INDUSTRY
February 2019