



Connecticut Department of Public Health

Testimony Presented Before the Public Health Committee

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Senate Bill 590 - An Act Permitting the Commercial Use of Sous Vide

The Department of Public Health (DPH) provides the following information in regard to Senate Bill 590. Language provided within the Connecticut Public Health Code does not allow for hermetically sealed foods which have not been processed in a commercial processing facility to be utilized within foodservice establishments. "Hermetically sealed" is defined in the federal Food and Drug (FDA) Model Food Code as "a container that is designed and intended to be secure against the entry of microorganisms...". Further, the FDA has provided guidance that states sealed bags, such as those used during reduced oxygen packaging, including sous vide operations, fall under the definition of hermetically sealed.

National standards have been developed for special processes that, when not adhered to exactly, can cause increased risk for foodborne disease, especially *Listeria monocytogenes* and *Clostridium botulinum*.

Passage of SB 590 will require changes in current regulatory language within the Public Health Code, and extensive training of Connecticut's current 400+ Certified Food Inspectors related to the special processes needed. Such training will also include Hazard Analysis and Critical Control Points (HACCP) review and approval, the proper use and regulatory oversight of reduced-oxygen equipment, records review, and associated enforcement issues.

The FDA has provided the regulatory basis for these special processes under §3-502.12 of the FDA Model Food Code. Background information has been provided below. The DPH would not support any bill that did not include and adhere to these national standards, or could not be implemented within available appropriations. The Department would be happy to work with the proponents of the bill to achieve mutually acceptable language that would reflect the best practices as outlined by the federal Food and Drug Administration.

Guidance for Establishments using ROP

(This information was obtained and developed from CT DPH "Special Processes FDA Course" and Connecticut Department of Consumer Protection)

"Reduced Oxygen Packaging" (ROP) means:

- (i) The reduction of the amount of oxygen in a package by removing oxygen; displacing oxygen and replacing it with another gas or combination of gases; or otherwise controlling the oxygen content to a level below that normally found in the ambient atmosphere (which is typically at 21% oxygen content, ROP would therefore be less than 21% oxygen), and
- (ii) A process that involves a food for which the hazards of *Clostridium botulinum* and *Listeria monocytogenes* require control in the final packaged form.

"Sous Vide Packaging" (SVP) in which raw or partially cooked food is placed in a hermetically sealed, impermeable bag, cooked in the bag, served or rapidly chilled and refrigerated at temperatures that inhibit the growth of psychrotrophic pathogens.

Concerns about ROP and sous vide:

- Facultative bacteria (most food borne pathogens) grow under aerobic & anaerobic conditions
- Most spoilage organisms are no longer "indicators" for temperature abuse (*MAP modifies spoilage conditions allowing Clostridium botulinum to grow and produce toxin before signs of spoilage occur*)
- Extended shelf life could allow bacteria that are "slow growers" to reach high numbers under refrigerated conditions
- Secondary barriers or hurdles such as low pH or A_w (water activity) are not always possible with cook chill and sous vide packaging
- Potential for temperature abuse at retail and in the home is great
- Cooking and fermentation destroy most vegetative cells but spore forming organisms like *C. botulinum* survive

ROP Procedures

Food establishments must supply the local health department with a HACCP for each food item undergoing a ROP process.

Reduced oxygen packaged foods must be maintained at a temperature of 41°F or below.

Access to the reduced oxygen packaging equipment should be restricted to persons who have been trained on the equipment, the procedures and the concepts required for safe reduced oxygen packaging.

Written HACCP plan and SSOPs shall be developed, adhered to and monitored. These procedures shall include steps to minimize opportunities for product adulteration and cross-contamination.

HACCP plan

- Hazards (both *Clostridium botulinum* and *Listeria monocytogenes* hazards must be considered)
- Critical control points (refrigeration & secondary barrier such as appropriate A_w or pH)
- Critical limits -
 - 41°F, secondary barrier (pH or A_w) and 14 day shelf life
 - 34°F, no secondary barrier and 30 day shelf life
 - 38°F, no secondary barrier and 72 hr. shelf life
- Monitoring (temperature continuously monitored electronically)
- Corrective actions (appropriate for safety)
- Verification (if unable to verify, must discard)
- Record keeping (held 6 months— for cooking, cooling, refrigeration)
 - Names of food(s) to be packaged using ROP
 - Critical control points documentation
 - Secondary barrier documentation in addition to refrigeration documentation for each food

Standard Sanitary Operating Procedures

Training for food employees engaged in ROP is critical and must identify:

- Procedures which must be followed
- Critical limits which must be met, monitored, have corrective actions if not met and record keeping
- Consequences of not meeting critical limits
- SSOPs (especially hand washing, no bare hand contact with ready-to-eat foods, cleaning and sanitizing food contact equipment)
- Dedicated work areas to separate raw and ready-to-eat foods

Planning, Placement & Equipment

- Care should be taken with respect to placement of the product in the context of the manufacturer's recommendations and effective use, cleaning and sanitizing of the equipment.
- Equipment uses should be designed to operate within the requirements of the establishments and if applicable should meet industry standards such as NSF or equivalent.

Food Specific Requirements

Cook chill and sous vide packaging

- Refrigeration units must be continuously monitored electronically and visually examined twice daily
- Bagged product transported to a satellite location must have temperature monitored using verifiable monitoring
- Maximum shelf life at 34°F (if not frozen) is 30 days after preparation
- Bags must be labeled with product name and date packaged
- Cooling and refrigeration temperature records must be held 6 months and made available to the regulatory authority
- Review is required if the process deviates from the manufacturer's system

Facility Inspection of ROP Process

Inspection

- Review of the written HACCP plan,
- Confirm staff has received training according to the HACCP plan/SSOPs
- Observe preparation of food
- Observe packaging of food
- Clean and sanitized equipment, utensils, supplies
- Dedicated work areas for raw and prepared foods
- Examine seal, determine if seal is complete – no debris in seal
- No cross-contamination
- Storage of equipment, utensils, packaging materials is appropriate
- Labels have necessary information
- Examine storage & display of product for sale or use
- Appropriate storage temperature (41°F, 38°F or 34°F)
- No packages held past appropriate shelf life
- Examine expiration dates on packages in storage and on display
- Confirm product is discarded beyond the appropriate expiration date
- Continuous electronic monitoring for Cook Chill or Sous Vide
- Records kept 6 months for electronic monitoring
- Confirm that product temperatures are visually examined twice daily
- Records Reviews