

# Food Code Fact Sheet #4

What you should know about the Code

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FOODSAFETY

## Cook/Chill and Sous Vide

### OAD 333-150-0000, CHAPTER 3-502.12 (D)

(D) Except as specified under ¶ (C) of this section, a food establishment that packages food using a cook-chill or sous vide process shall:

- (1) Implement a HACCP plan that contains the information as specified under ¶ 8-201.14(D); <sup>Pf</sup>
- (2) Ensure the food is:
  - (a) Prepared and consumed on the premises;<sup>Pf</sup>
  - (b) Cooked to heat all parts of the food; <sup>P</sup>
  - (c) Protected from contamination before and after cooking; <sup>P</sup>
  - (d) Placed in a package with an oxygen barrier and sealed before cooking, or placed in a package and sealed immediately after cooking and before reaching a temperature below 57°C (135°F); <sup>P</sup>
  - (e) Cooled to 5°C (41°F) in the sealed package or bag; <sup>P</sup>
  - (f) Held in a refrigeration unit that continuously monitors time and temperature and is visually examined twice daily;<sup>Pf</sup> and
  - (h) Labeled with the product name and the date packaged;<sup>Pf</sup> and
- (3) Maintain the records required to confirm that cooling and cold holding refrigeration time/temperature parameters:
  - (a) Make such records available to the regulatory authority upon request; <sup>Pf</sup> and
  - (b) Hold such records for at least 6 months; <sup>Pf</sup> and
  - (4) Implement written operational procedures and a training program.<sup>Pf</sup>

### PUBLIC HEALTH REASONS:

Both processes depend on time/temperature alone as the only barriers to pathogenic growth. Therefore, monitoring critical limits including those established for cooking to destroy vegetative cells, cooling to prevent outgrowth of spores/toxin production, and maintaining cold storage temperatures to inhibit growth and/or toxin production of any surviving pathogens is essential. Temperature control must be continuously monitored electronically and visually examined twice daily to verify that refrigeration temperatures are adequate.

**Cook/Chill** is a process where hot foods are sealed in plastic bags and quickly chilled. This is most commonly done in an ice/water bath, but there are other options. The process of cooking drives off oxygen and leaves a reduced oxygen level in the food, even though the plastic bag may be sealed with a large amount of air at the top of the package. This process is commonly used for large batches of soups and sauces.

**Sous Vide** [soo VEED] is a French phrase meaning "under vacuum," and this method of food preparation is gaining in popularity among chefs. With this method, fresh, raw ingredients or partially cooked ingredients are vacuum-sealed in an impermeable plastic bag. The bag is then cooked at relatively low temperatures in a water bath.

This type of packaging may also be referred to as Reduced Oxygen Packaging (ROP). Because the food is packaged in a reduced oxygen atmosphere, the main concern is the growth of and toxin formation by *Clostridium botulinum* and the growth of *Listeria monocytogenes*. Both of these organisms can grow in refrigeration temperatures, so product may not be stored between 38F-41F for more than three days.

To use either of these processes a Hazard Analysis of Critical Control Points (HACCP) plan must be submitted to your local health inspector and approved prior to starting the process. You can find more information on what to include in your HACCP plan on our website at: [www.healthoregon.org/FoodSafety/Documents/haccp.pdf](http://www.healthoregon.org/FoodSafety/Documents/haccp.pdf).



**Pork shoulder packaged and waiting to be cooked.**

If your refrigeration is not continuously monitored electronically for time and temperature, a variance would be required for either cook/chill or sous vide.

**Note: If you only leave the product in the sealed bag for 48 hours (or less), then you are not required to submit a HACCP plan or apply for a variance.**