

For Real ... What Is 'Sous Vide' Cooking?

When conducting our Food Service Manager classes, we touch on the subject of sous vide cooking, the variance, and the HACCP required to obtain the variance. Even though sous vide has become a more fashionable method of cooking, a lot of students don't know what it means or entails.



First, HACCP is an acronym that stands for Hazard Analysis Critical Control Point. HACCP is a Food Safety Management system that focuses on this concept: If significant biological, chemical, or physical contaminations are identified at specific points within a product's flow through an operation, they can be prevented, eliminated, or reduced to safe levels. But what does that really mean?

HACCP was initially enforced in the U.S. for fish and meat plants. Nowadays, it is nationally required if an establishment is seeking a variance for the reasons listed below. The common denominator for most of these activities that require a variance is that they are "methods of food preservation." In a nutshell, no one has permission to do the following activities unless they have a variance (permission) to do so. Which means to get the variance for the following activities, one has to provide written proof (a written HACCP plan) which demonstrates that the establishment can handle the food safely through the entire flow of the food item. This makes sense because when preserving food improperly, there is much opportunity for bacterial growth to occur.

Activities that require a variance and a written HACCP plan are:

- Smoking food as a method of **food preservation**

- Using food additives as a method of **food preservation**
- Curing food as a method of **food preservation**
- Custom processing animals for personal use as a method of **food preservation**
- Packaging food using a reduced-oxygen packaging method (MAP, vacuum-packed, or **sous vide**) as a method of **food preservation**
- Treating juice on-site (pasteurizing) and packaging it for later sale
- Sprouting seeds or beans
- Offering live, molluscan shellfish from a display tank as a method of **food preservation**

So what is sous vide?

Sous vide is a low temperature cooking process that infuses flavor into food through a 'low and slow' cooking method. Sous vide means 'under vacuum' in French, referring to the process of vacuum sealing the food and putting it in a water bath for a longer than normal cooking time. The result is consistently and evenly cooked foods that are very flavorful and tender. The sealing of the bag keeps in the juices and aroma. The process originated in France in the 1970s.

Why does sous vide cooking require a variance and a HACCP plan?

Vacuum packing does not stop the growth of bacteria. Oxygen acts as a natural barrier to the growth of many spoilage bacteria. However, when the oxygen is removed, as in sous vide, other bacteria will thrive in the low oxygen condition. Without spoilage bacteria, the typical 'tell-tale' signs that a food item might be bad are gone. While



bacteria are reduced in number while the product is in the warm water bath, it is not enough that the product is considered safe. Because of the risks involved (including bacteria like botulism and listeria), operations are required to request a variance and prepare a HACCP detailing how to keep the food items (and customers) safe.

Best ways to keep your food safe

Wash your hands and wear single-use gloves, use clean and sanitized equipment, and avoid any potential contamination while preparing the food items to be bagged. Once the item is bagged, be sure to label the bag with the food item, handling instructions, and use-by date. It is important that after the low temp bath, the food items are chilled properly, following normal cooling guidelines. Be sure to have a needle tip thermometer so that the internal temp of the food item

can be monitored — a must for the health department. Cooling the food item properly can help prevent the formation of bacterial spores. Sous vide items must be stored under refrigeration at 38°F or lower, or frozen, to further reduce the risk of bacterial growth. When finishing the product for service, be sure to cook the food item to the FDA required minimum internal temperature for safety.

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