

**Conference for Food Protection
2023 Issue Form**

Issue: 2023 I-023

Council Recommendation: Accepted as Submitted _____ Accepted as Amended _____ No Action _____

Delegate Action: Accepted _____ Rejected _____

All information above the line is for conference use only.

Issue History:

This is a brand new Issue.

Title:

Amend Food Code to Update Final Cook Temps for Sous Vide under 3-502.12

Issue you would like the Conference to consider:

A recommendation is being made to include alternate cooking time/temperature combinations as found in USDA FSIS Appendix A as acceptable cooking parameters for 3-502.12 (D)(2)(b).

Public Health Significance:

Sous vide is translated to under vacuum from French. This type of cooking uses heat stable pouches to cook foods in a controlled environment. Some of the benefits of sous vide cooking are that the food cooks in its juices, enhancing flavor, and the consistent temperature provides an environment where food does not become overcooked. The food safety aspects of the low temperature, long processing time used in sous vide have been studied, and temperatures below the final cook temperatures provided in the FDA Food Code 3-401.11(A)(3) have been researched. One study titled *Effect of Time and Temperature on Physicochemical and Microbiological Properties of Sous Vide Chicken Breast Fillets* found that the optimum time/temperature combination for cooking chicken using sous vide is 60°C for 60 minutes.

FDA Food Code has made allowances for some reduced oxygen packaging (ROP) to be done without requiring a variance, as stated in 3-502.12. This section of the code allows for food establishments to use a HACCP Plan only for some ROP methods without applying for a variance, since the validation science is well-known. However, 3-502.12 (D)(2)(b) requires that food cooked using sous vide methods must reach final cook temperatures that are provided in 3-401.11(A)-(C). Most retail food establishments that cook using sous vide want to use alternate cooking time/temperatures, so this requirement makes it impractical for establishments to use 3-502.12 to ROP without a variance.

USDA FSIS has written a guidance document that is used to evaluate the production of ready-to-eat foods with respect to salmonella and other pathogens. This document, titled "FSIS Cooking Guideline for Meat and Poultry Products (Appendix A)" has been well

researched in terms of the science behind the pathogen destruction parameters. In this document, there are many additional time/temperature combinations that result in the equivalent destruction of pathogens as the FDA Food Code 3-401.11 parameters. Although relative humidity is included in this document, relative humidity would not be a factor specifically for sous vide cooking, as the food is being cooked in the package. Since the science behind the parameters in this document is widely accepted, cooking sous vide using these parameters does not need additional validation. Therefore, a HACCP Plan for a sous vide product cooked using these parameters should not require a variance.

There is current precedent for inclusion of the FSIS Appendix A in the FDA Food Code. FDA Food Code Section 3-401.11(B) provides some time/temperature combinations acceptable for cooking of whole meat roasts. This does not apply to the current issue however, since poultry products are not included. Providing uniform guidance for cooking across the agencies would increase industry confidence and promote consistency among regulators.

Recommended Solution: The Conference recommends...:

That a letter be sent to the FDA requesting that the most recent version of the FDA Food Code, Section 3-502.12(D)(2)(b), be amended to include the "FSIS Cooking Guideline for Meat and Poultry Products" as acceptable final cooking parameters for reduced oxygen packaging without a variance.

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Supporting Attachments:

- "Effect of Time and Temperature on Physicochemical Properties of Chicken"

It is the policy of the Conference for Food Protection to not accept Issues that would endorse a brand name or a commercial proprietary process.