**21 CFR 114: Acidified Foods**

**Background:** 21 CFR 114 was established as an extension of 21 CFR 113 due to the high risk of food safety issues related to low-acid foods (pH>4.6) packaged in hermetically sealed containers, such as cans or pouches. Acidified foods are low acid foods which have had acid added to them, and are now:

* pH<4.6
* water activity>0.85
* shelf-stable (non-refrigerated or frozen)
* canned (or other oxygen-free environment)

The combination of high water activity and shelf-stable, oxygen-free environment creates conditions that allow *Clostridium botulinum*, a deadly bacteria, to grow. The acidified environment (pH<4.6) is the only thing that prevents it from growing. To ensure these products are made safely, the FDA requires certain steps to be met when making acidified foods.

**Affected foods (non exhaustive list):** Food that meets the criteria mentioned above- pH<4.6, water activity>0.85, shelf-stable, and canned. Examples include shelf-stable pickles, salsas, and others. Certain types of acidified foods (jams, jellies, certain sauces) are exempt from this regulation.

**Requirements:**

* **Regulatory:** There are a variety of regulatory requirements related to 21 CFR 114- one important one is that a *process authority* must verify the safety of your process.
* **Training:** The primary operator of an establishment making must take an FDA-approved course, such as “The Better Process Control School”, which covers how to safely make LACF.

**Additional resources\*:**

* [21 CFR 114 Regulation](https://www.ecfr.gov/cgi-bin/text-idx?SID=d8eee34da7cb7d4d10243b00038424de&mc=true&node=pt21.2.114&rgn=div5)
* [FDA Acidified & Low-Acid Canned Foods Guidance Documents & Regulatory Information](https://www.fda.gov/food/guidance-documents-regulatory-information-topic-food-and-dietary-supplements/acidified-low-acid-canned-foods-guidance-documents-regulatory-information)
* [Acidified and Low-Acid Food Regulatory Requirements- Penn State](https://extension.psu.edu/acidified-and-low-acid-food-regulatory-requirements)
* [Facility Registration and Initial Regulatory Compliance Activities for Acidified Food and Low-Acid Canned Food Process in Florida- University of Florida](https://edis.ifas.ufl.edu/fs318) (not specific to the state of Florida)
* [Acidified Low-Acid Foods- UC Davis](https://ucfoodsafety.ucdavis.edu/processing-distribution/product-types/acidified-low-acid-foods)
* [How to Submit a Commercial Food Product for Process Review- New Mexico State University](https://aces.nmsu.edu/pubs/_e/E325/welcome.html) (information on filing and process authorities)

\*Note- many of these resources also related to low acid foods, which are different from acidified foods. Low acid foods fall under CFR 113- more information can be found [here](https://www.ecfr.gov/cgi-bin/text-idx?SID=fcf52c6d383f1802c3210257d7dee987&mc=true&node=pt21.2.113&rgn=div5)