Food Processors

What is a Process Review?

A process review is a complete evaluation of how a food product is made, including ingredients, all the steps of preparation, and packaging. A process review is conducted by a food processing authority. A food processing authority is a person who has expert knowledge of thermal processing requirements for low-acid foods packaged in hermetically sealed containers or has expert knowledge in the acidification and processing of acidified foods. A list of processing authorities can be found at the end of this document.

When is a Process Review Required?

Foods produced using a special process including low acid or acidified foods are required to submit results of the process review along with the food license application. Homestead food operations producing jams and jellies that do not use a standardized recipe available at the National Center for Home Food Preservation (www.uga.edu/nchfp) are required to have process reviews for each of their products to ensure the final product has been produced safely and is shelf stable. Process reviews are also required to determine whether a processed food is an acid food or acidified food. Acid foods may be produced in a homestead food operation whereas acidified foods are required to be produced in a commercial facility under a food processing plant food license.

Why is a Process Review Required?

Dressings, sauces, marinades, and similar food products depend on their acidity to prevent spoilage. They may consist of naturally acidic foods, such as fruit juice or tomatoes, or they may be formulated by combining acid foods with other foods to achieve the desired acidity. Some foods, such as vinegar and certain pickled vegetables, may develop acidity from microbial fermentation. Because foods without adequate acidity may allow the growth of microorganisms that cause foodborne illness, it is important to make sure the process is safe and renders the product shelf stable. Included in this group of food products requiring a process review are: fermented foods such as sauerkraut, acidified foods such as pickles, salsa or relishes, low acid foods such as canned vegetables, dehydrated fruits and vegetables, hot sauces, jams and jellies.

The process review aids in identifying critical control points for a HACCP plan, such as final fill temperature or finished equilibrium pH.

What is a HACCP plan and why is it important?

A Hazard Analysis and Critical Control Point (HACCP) plan is a process control system that identifies where hazards (e.g. chemical, microbiological and physical contamination) might occur in the food production process and puts into place stringent actions to take to prevent the hazards from occurring. By strictly monitoring and controlling each step of the process, there is less chance for hazards to occur. The “food production process” includes procurement and handling of raw products, manufacturing, distribution and sale of the finished product. More information about HACCP plans is available at https://www.fda.gov/food/hazard-analysis-critical-control-point-haccp/haccp-principles-application-guidelines#defs.
Are HACCP plans required for food processors?

Yes, Per He-P 2300, The New Hampshire Rules for the Sanitary Production and Distribution of Food 2304.13, all food processing plant licensees (with the exception of the Class G license) are required to have a HACCP plan for the products they produce as the hazard analysis identifies and documents critical control points within the manufacturing process.

There are also federal requirements for HACCP plans for specific categories of foods. The US Food and Drug Administration (FDA) requires HACCP for the Juice and Seafood Processors. See the FDA website for more information about these requirements. [https://www.fda.gov/Food/GuidanceRegulation/HACCP/](https://www.fda.gov/Food/GuidanceRegulation/HACCP/)

The US Department of Agriculture (USDA) requires HACCP plans for some meat products. See the USDA website for more information regarding these requirements at [https://www.fsis.usda.gov/wps/portal/fsis/topics/inspection/workforce-training/online-references/pathogen-reduction-and-haccp/haccp-ssop-implementation](https://www.fsis.usda.gov/wps/portal/fsis/topics/inspection/workforce-training/online-references/pathogen-reduction-and-haccp/haccp-ssop-implementation)

How Does HACCP Work in Food Processing?

There are seven principles of HACCP that serve as the foundation for a HACCP plan. They are:

1. **Principle 1**: Conduct a hazard analysis to identify potential hazards that could occur in the food production process.

2. **Principle 2**: Determine the critical control points (CCPs). Those points in the process where the potential hazards could occur and can be prevented.

3. **Principle 3**: Establish critical limits for preventive measures associated with each CCP. A critical limit is a criterion that must be met for each CCP.

4. **Principle 4**: Establish monitoring procedures to ensure each CCP stays within its critical limits.

5. **Principle 5**: Establish corrective actions if monitoring determines a CCP is not within the established limits. In case a problem occurs, corrective actions must be in place to ensure no public health hazard occurs.

6. **Principle 6**: Establish effective recordkeeping procedures that document the HACCP plan is working properly. Records should document CCP monitoring, verification activities and deviation records.

7. **Principle 7**: Establish procedures for verifying that the HACCP system is working properly with recordkeeping and documentation procedures.

Where can I find help in developing a HACCP plan?

There are online resources, as well as University Extension Programs that offer assistance in developing HACCP plans. The New England Food Entrepreneurs website [https://nefoodproducers.org/food-entrepreneurs-specialty-food-processors/fmsa-haccp](https://nefoodproducers.org/food-entrepreneurs-specialty-food-processors/fmsa-haccp) contains local resources that can assist with HACCP plans. The website is an outreach program of the New England Land-Grant Universities, a Cooperative Extension that helps small food businesses access needed information, resources, and education to be successful.
What rules or regulations are New Hampshire food processors required to follow?

The NH Rules for the Sanitary Production and Distribution of Food, He-P 2300, are the administrative rules that cover the manufacturing of food products. Specifically, He-P 2309 addresses the requirements for food processing plants. He-P 2300 may be accessed at http://www.gencourt.state.nh.us/rules/state_agencies/he-p2300.html

Are there any federal requirements for food processing processors?

The FDA Food Safety Modernization Act (FSMA), which was enacted on January 4, 2011, amended section 415 of the Federal Food, Drug, and Cosmetic Act (FD&C Act). This amendment requires facilities engaged in manufacturing, processing, packing, or holding food for consumption in the United States to submit additional registration information to FDA, including an assurance that FDA shall be permitted to inspect the facility at the times and in the manner permitted by this amendment. FSMA also requires food facilities to register with the FDA and to renew such registrations every other year. The FDA has the authority to suspend the registration of a food facility under certain circumstances. Specifically, if FDA determines that food manufactured, processed, packed, received, or held by a registered food facility has a reasonable probability of causing serious adverse health consequences or death to humans or animals, FDA may suspend the registration of a facility that:

- Created, caused, or was otherwise responsible for such reasonable probability; or
- Knew of, or had reason to know of, such reasonable probability; and packed, received, or held such food.

This requirement is an amendment to the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (the Bioterrorism Act) and became effective on December 12, 2003. There are a few exemptions to this requirement. Refer to the link below to determine if your facility is required to register with the FDA.

https://www.fda.gov/Food/GuidanceRegulation/FoodFacilityRegistration/default.htm


What are the special requirements for processors of low acid canned foods?

Processors of low acid canned foods are required to be in compliance with Part 113 (21CFR113) and Part 117 (21CFR117) as outlined above in addition to the regulations in He-P 2309.

Within 21CFR113, low acid canned food processors are required to attend and satisfactorily complete a Better Process Control School (BPCS) for the thermal processing of low acid foods.

In addition to the BPCS, manufacturers of acidified and low acid foods are required to file and register their scheduled processes with the FDA as stated in Part 108 (21CFR108) using Form FDA 2541 (food canning establishment registration).

For more information about processing low acid canned foods, see

https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/AcidifiedLACF/default.htm

What are the special requirements for processors of acidified foods?

Processors of acidified foods are required to be in compliance with Part 114 (21CFR114) and Part 117 (21CFR117) as outlined above in addition to the regulations in He-P 2309.

Within 21CFR114, acidified processors are required to attend and satisfactorily complete a Better Process Control School (BPCS) for acidified foods.

In addition to the BPCS, manufacturers of acidified and low-acid foods are required to file and register their scheduled processes with the FDA as stated in Part 108 (21CFR108) using Form FDA 2541 (food canning establishment registration).
For more information about processing acidified foods, see https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/AcidifiedLACF/default.htm

What is a Better Process Control School?

The Better Process Control School is for supervisors or the individual who is responsible for the plant at the time a canned food product is packed and processed. The school is particularly intended for operating supervisors involved in production of thermally processed low acid and acidified foods. The school is made up of a series of lectures and exams on all aspects of production and packaging. BPCS is a course that has been approved by the FDA as well as the USDA for processors of acidified foods and low acid canned foods.

Is there an online Better Process Control School available or do you have to attend a class?

Yes, the University of Tennessee in Knoxville is now providing an on-line Better Process Control School. This course can be accessed at http://foodscience.tennessee.edu/betterprocesscontrolschool/
Better Process Control School may be offered by universities that specialize in food science and food processing disciplines. A current list of facilities offering this certification can be found at https://www.gmaonline.org/resources/science-education-foundation/better-process-control-schools/.

Is a recall procedure required?

Yes, a recall procedure is a written procedure or plan for the removal of food products that have been identified as being able to adversely affect the health and safety of the public. It is important to remove products that have been contaminated, adulterated or products with undeclared allergens as these can all pose significant health consequences to the public. Prompt removal of the product is necessary to significantly minimize the threat to health and safety of the public.
The plan also contains procedures for the notification of the New Hampshire Division of Public Health Services Food Protection Section, the FDA and consumers. It may be necessary for a press release to be sent out by the food processing plant through the media to assure a timely notification to the consumers. Therefore, the ability to identify those products which may have be adversely affected through provided lot codes or batch code information on the product labels. This will aid the food processing plant in removing only the affected products from distribution but also aid the consumer in identifying the affected product in their homes. Detailed production records as to the quantity of products produced and distribution of the specific lot codes to commerce will significantly aid in an effective product recall.

More information on a recall procedure may be found in section He-P 2309.05 of the NH Rules for the Sanitary Production and Distribution of Food.
The link is provided below: http://www.gencourt.state.nh.us/rules/state_agencies/he-p2300.html

The FDA guidance document entitled Guidance for Industry: Product Recalls, Including Removals and Corrections which can be found at https://www.fda.gov/safety/recalls-market-withdrawals-safety-alerts/industry-guidance-recalls
Food Processing Authorities:

UNIVERSITY OF MAINE
Cooperative Extension and School of Food & Agriculture
5735 Hitchner Hall
Orno, ME 04469-5735
Contact: Beth Calder, PhD
E-Mail: beth.calder@maine.edu
Phone: 207-581-2791
https://extension.umaine.edu/food-health/food-safety/services/
Services:
Process Reviews for acidified foods, jams and jellies
(No refrigerated products)
Better Process Control School.

CORNELL UNIVERSITY
Food Venture Center
630 West North St.
Geneva, NY 14456
Contact: Bruno Xavier, PhD
E-Mail: bmx2@cornell.edu
Phone: 315-787-2280
https://cfvc.foodscience.cals.cornell.edu/
Services:
Process Reviews for Acidified Foods, Tomato-based Products and Processed Fish.
Shelf Life Testing. Nutritional Analysis. Better Process Control School

RUTGERS UNIVERSITY
Food Development & Manufacturing Center
120 New England Ave
Piscataway, NJ 08901
Contact: William Franke, PhD
E-Mail: franke@aesop.rutgers.edu
Phone: 732-445-6130
http://caft.rutgers.edu
Services:
Process Reviews
Better Process Control School

UNIVERSITY OF TENNESSEE
2510 River Drive
Knoxville, TN 37996
Phone: 865-974-7287
Contact: Nathan Miller
Email: nathan.miller@utk.edu
http://foodscience.tennessee.edu/betterprocesscontrolschool/

PASTER TRAINING, INC
PTI Consulting Group
25 Swinehart Road
Gilbertsville, PA 19525
Contact: Melissa Vaccaro, CP-FS, FMP
E-Mail: melissa.vaccaro@pastertraining.com
Phone: 610-970-1776
http://www.pastertraining.com
Services: Kombucha, Process Reviews, HACCP, Training and Consulting

ADDITIONAL FOOD PROCESSOR INFORMATION AVAILABLE AT:
http://www.afdo.org/foodprocessing