

## Good Manufacturing Practices (GMPs)

As part of a complete and effective food safety program, seafood processors must also ensure that general prerequisite food safety programs are in place before they can successfully implement an effective Seafood HACCP program.

Current Good Manufacturing Practices (CGMP's) were updated as part of the Food Safety Modernization Act (FSMA) and represent one of the prerequisite programs that apply to all businesses that process, pack, or hold food for human consumption.

### GMP Requirements

Current GMP regulations can be found in [Title 21, Part 117, Subpart B](#) of the Code of Federal Regulations which indicate minimum requirements a facility must meet to safely produce food for human consumption. This includes the methods, equipment, facilities, and controls for producing processed food to ensure it is produced in a safe and wholesome manner. A brief description of each of these requirements is provided here.

### 117.10 Personnel

All personnel must be in good health and maintain good hygiene when working with food for human consumption to limit the potential for contamination. Personnel should be properly trained and supervised to ensure health and hygiene do not pose a risk to production.

### 117.20 Plants and Grounds

The grounds surrounding a food facility must be adequately maintained and in good condition to limit the potential for contamination. The plant (facility) must be constructed and designed to fit the proposed operations and allow for effective maintenance and sanitary operations to limit the potential for contamination.

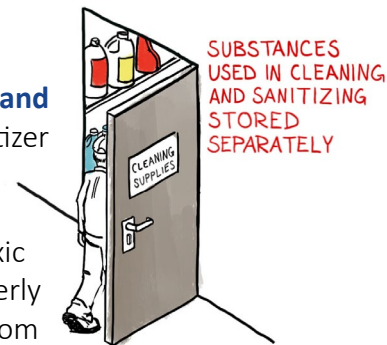
## 117.35 Sanitary Operations

All food facilities must maintain sanitary operations at all times when food production, packaging, and storage is taking place, which includes:

**General maintenance:** Buildings, fixtures and other physical components within a facility must be maintained under sanitary conditions and in good repair.

### Substances used in cleaning and sanitizing:

Cleaning and sanitizer agents must be safe and adequate for the conditions they are being used in. Toxic materials must be properly labeled and stored away from food and food contact surfaces



to limit the risk of contaminating the foods. Your suppliers and food safety professionals can assist you in determining what cleaning and sanitizing products are adequate for your operation.

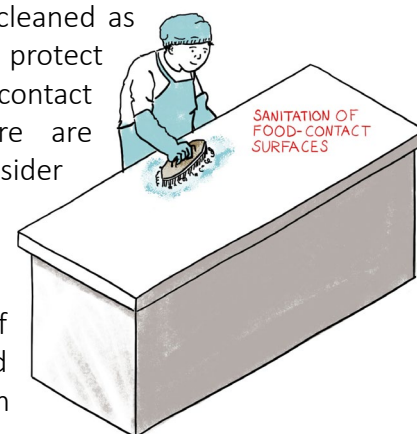
### PEST CONTROL



**Pest Control:** Effective pest control methods should be implemented to ensure pests are excluded from all areas of a food facility.

**Sanitation of Food-Contact Surfaces:** Any surface within a facility that comes in contact with food (food-contact surface) must be cleaned as frequently as necessary to protect foods from allergen cross-contact and contamination.

There are many variables to consider when determining the necessary frequency (i.e. equipment type/age, personnel, frequency of use, foods being processed etc.), which will vary from operation to operation.



### SANITATION OF NON-FOOD-CONTACT SURFACES

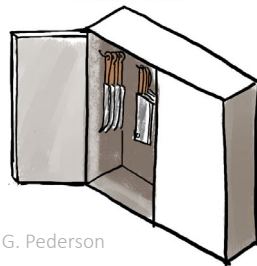
#### Sanitation of Non-Food-Contact Surfaces:

Any surface within a facility that does not come in direct contact with food (non-food-contact surface) must be cleaned as frequently as necessary to protect foods, food-contact surfaces, and food packaging from allergen cross-contact and contamination.



#### Storage and Handling of Cleaned Equipment:

All clean equipment and utensils must be stored in a manner that protects them and food-contact surfaces from allergen cross-contact and contamination.



Illustrations by G. Pederson

### 117.37 Sanitary Facilities and Controls

All food facilities must maintain sanitary conditions with water that is adequate for its intended use, proper plumbing, sewage disposal, toilet facilities, hand washing facilities and waste disposal. See Seafood Guide #5 for more detailed information on sanitation.

### 117.40 Equipment and Utensils

Equipment and utensils used in a facility must be designed and constructed in a manner that is suitable for the intended use and allows for effective maintenance and cleaning to reduce the risk of contamination.

### 117.80 General Processes and Controls

General Processes and Controls within any food facility must be implemented to control hazards associated with:

**Raw Materials and Other Ingredients:** All ingredients must be clean and suitable for processing into food and stored in a way that minimizes deterioration and protects against allergen cross-contact and contamination.

**Manufacturing Operations:** All manufacturing, processing, packing, and holding procedures implemented within a facility must operate in a way that reduces or eliminates potential for allergen cross contact or contamination. This includes but is not limited to physical and chemical barriers (temperature, pH, salinity etc.) in addition to adequate cleaning and sanitation. See NY Sea Grant Sefood Guide #6 for more information on allergens and cross contact.

### 117.93 Warehousing and Distribution

Warehousing and Distribution practices should be designed in a way that ensures foods are protected from contamination and deterioration of the food and its packaging.

### 117.95 Holding and Distribution of Human Food By-Products for Use as Animal Food

Food waste that will be diverted to animal feed without further processing must be held in a manner that prevents contamination.

### 117.110 Action Defect Levels

Those manufacturing, processing, packing, or holding food for human consumption must implement procedures that minimize natural or unavoidable defects. Natural and unavoidable defects associated with different foods and their limits can be found in the FDA's Defect Action Levels Handbook; an example for fish and fishery products would be parasites.

What constitutes adequate, as used throughout this document, will vary depending on the facility and its operations. The procedures outlined here are general, allowing each operation to develop programs that work for their facility and unique situation. For additional guidance refer to the [FDA Good Manufacturing Practices Checklist for Human Food](#) developed by Iowa State University Extension.