

Master Brewers

Food Safety Bite

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Current Good Manufacturing Practices—Sanitary Facilities

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The Food Safety Modernization Act (FSMA) requires that all food facilities, including beer manufacturing, comply with current Good Manufacturing Practices (cGMPs). After all, beer is food, and it must be treated as such. When referring to food safety in the brewing industry, GMPs are often called Good Brewing Practices (GBPs).

This month's Food Safety Bite covers sanitary facilities and controls per 21 C.F.R. § 117.37 (2020). This section includes water supply, plumbing, sewage disposal, toilet facilities, hand-washing facilities, and rubbish and offal disposal.

Water Supply

Water supply to the facility must be sized appropriately for demand and come from an adequate, clean source. Water must also be provided at the correct temperature and pressure for cleaning equipment and to hand-washing stations and sanitary facilities. Food contact water should be sanitized, such as with UV light, sterile filtration, or ozone. The water supply should be regularly tested to ensure sanitary conditions and to establish a baseline for solids and minerals.

Plumbing

Plumbing must be designed to be able to provide the required water supply throughout the plant for process and cleaning, as well as to drain sewage and wastewater from the plant. It is critical that the design does not allow cross-contamination between the potable water supply and wastewater systems. Floor drainage is also mandated in areas where cleaning process release water or liquid waste to the floor.

Brewery Plumbing Best Practices

- Floor drains must be designed for food processing area use, for regular cleaning, sloped to allow adequate and complete drainage, covered, maintained, and cleaned to avoid buildup and growth.
- Depending on location, different degrees of wastewater treatment may be required—from removal of solids to PH correction/BOD correction to full treatment.
- Backflow preventers may be required by local plumbing codes and, if installed, should be inspected on a regular interval.

Sewage Disposal

Sewage must be disposed of into an adequate sewer system.

Toilet Facilities

Adequate toilet facilities must be provided and readily accessible to employees. These must be kept clean and must not be a potential source of cross-contamination to materials or process areas. It is critical that there be a cleaning interval prescribed for employee restrooms, including properly stocking all necessary consumables. Signage should also be provided that indicates all employees must wash their hands before returning to work. Toilet facilities should not open directly into processing areas.

Hand-Washing Facilities

Hand-washing facilities must be readily available and convenient to ensure that employees' hands will not be a source of contamination. Warm running water (100°F) must also be provided to all hand-washing stations. Soap and paper towels or dryers must also be provided. Gloves are not a substitute for hand washing. Hands-free fixtures are recommended.

Rubbish and Offal Disposal

All waste (garbage, recycling, green waste, spent grain) must be stored and disposed of properly. This means avoiding creating a situation where waste products could cross-contaminate into the production process and also ensuring the waste product isn't an attractant to pests or contaminant to groundwater. Trash cans and the waste storage area should be cleaned regularly and labeled as to their intended use (trash, recycling, food waste, etc.).

Reference

U.S. Food and Drug Administration. 2020. Part 117—Current good manufacturing practice, hazard analysis, and risk-based preventive controls for human food. 21 C.F.R. § 117.37. FDA, Silver Spring, MD. www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-117.

Ask the Food Safety Team

Ever have a food safety question you don't know the answer to or for which you would like a second opinion? The Food Safety team is there to help! Just post your question in the "Ask the Brewmasters" section of the community site, and the Master Brewers Food Safety Committee will weigh in or get another expert's answer for you!