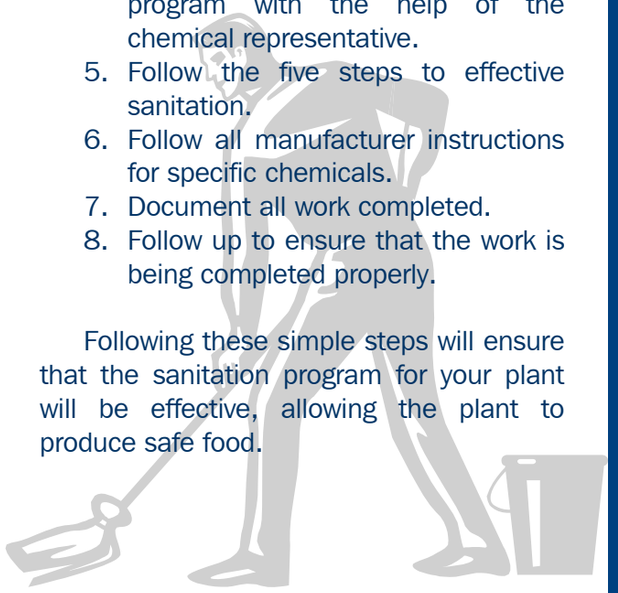
What Else Can Be Done?

Once the cleaning process is in place, it should be documented. Documenting the work is the best way to ensure that the work is always completed, and completed properly. Follow up to check that what is being documented is actually taking place in your facility.

Summary

1. Find out what kinds of soils you have.
2. Obtain help from representatives of the chemicals you will purchase. Purchase chemicals which come with support, training and assistance.
3. Determine what safety precautions you will need to ensure safe use.
4. Develop a cleaning and sanitizing program with the help of the chemical representative.
5. Follow the five steps to effective sanitation.
6. Follow all manufacturer instructions for specific chemicals.
7. Document all work completed.
8. Follow up to ensure that the work is being completed properly.

Following these simple steps will ensure that the sanitation program for your plant will be effective, allowing the plant to produce safe food.



For more information, please contact your local Chemical Representative or Food Safety Specialist.

Other information pamphlets are available online from the Department of Natural Resources at:

www.nr.gov.nl.ca/agric/

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Food Plant Sanitation Basics

Introduction

Good food plant sanitation is a critical part for ensuring food safety. The core of any sanitation plan is knowing how to effectively clean a plant in terms of what types of soils are encountered. This information pamphlet explains some common principles that will help processors first understand sanitation and second, how to get help to build a functional sanitation plan for their plants.

Knowing Your Soils

Knowing what kind of soiling or dirt you are facing is very important since different types of soiling require different types of chemicals and applications. Soiling itself refers to the waste products that are left over on equipment and the facility as a result of food processing.

There are two main types of soils, organic and inorganic. Examples of organic include large chunks of animal flesh, fur, feces, horns, blood, cuttings, food particles and other materials that are leftover after processing. This material is a food source for microbes. Organic can be broken down to bulk debris, fats and protein-type materials. Bulk debris is best removed manually, fats with caustics and protein materials with caustics fortified with chlorine.

The second type of soil is inorganic. Examples include scale and mineral buildup. Scale is not a good food source for microbes but rather provides a good hiding spot which can prevent adequate

Meat plants usually deal with primarily organic soils, while dairy usually have both types. The type of food you produce is usually the deciding factor on how you will plan to clean the plant.

Five Steps to Effective Sanitation

1. The first step is removal of bulk debris. Bulk debris includes large pieces of waste material, spills and left-over material occurring from processing. The best way to remove this material is manually. This means that all the bulk pieces must be collected first and disposed of in the garbage. This must always be performed first for any sanitation program.

2. The second step is the rinse. After the bulk material has been removed, the equipment and area should be rinsed with potable water to further remove debris and prepare the surface for the cleaner. Generally speaking, warm water will be more effective than cold when applying the initial rinse.

3. The third step is to apply the cleaner. All cleaners will have instructions for use on the label which will determine the amount used, the strength and contact time required. Before using any chemical you should consult the **M**aterial **S**afety **D**ata **S**heet to determine what protective equipment you will need for its use. You should not purchase chemicals which do not come with a **MSDS**. The job of the cleaner is to adhere to soils, bringing them into solution and allowing them to be rinsed away.

For organic soils, caustic (alkaline) cleaner are usually used, which in some cases might also have chlorine to help break down protein if that type of material is encountered. If scale is a problem, we would rinse after the elapsed contact time and add an acid cleaner to remove any scale buildup.

It is extremely important that when using chlorinated caustics, the rinse is sufficient since chlorine gas can be formed when mixing acids with chlorine-based cleaners. Always refer to the manufacturer's instructions and **MSDS** for use and precautions when using any chemicals. If you are in doubt, contact the manufacturer or representative. The chemical strength, quantity and contact time have been tested by the manufacturers, and using their recommendations when using their chemicals will usually yield the best results. Sometimes the chemical supplier will supply test kits to confirm the strength of these chemicals. Also note that while the chemical is applied, manual scrubbing with clean brushes and pads will dramatically improve the effectiveness of either caustic or acid cleanings.

4. Once the area and equipment has been cleaned according to manufacturer recommendations, a rinse will be required to remove the cleaner. A warm rinse will be most effective unless specified otherwise by manufacturer instructions.

5. The fifth and final step is to apply a sanitizer. Some sanitizers are required to be rinsed off after a certain time, and others do not require rinsing. The sanitizer's job is to reduce the bacterial load to low levels. Manufacturer instructions on the container will show what is required. It is important to note that sanitizers are not usually effective at cleaning; and if the area is not clean, the effect of the sanitizer will be greatly reduced. Always ensure the area is clean and rinsed before applying a sanitizer.

There are several kinds of sanitizers, including iodine-based, chlorine-based and hydrogen peroxide/peracetic acid. Some products also have these built into the cleaner allowing for a combination of steps 3-5. Always refer to manufacturer instructions.

What Cleaners/Sanitizers are Right for my Operation?

Most companies which sell cleaners and sanitizers also have experienced sanitation representatives. When you purchase their chemicals, you usually also get their service and support. There are many companies which sell chemicals, but not all support those chemicals. Choose a company which will provide your plant with support, education and assistance with your chemical needs.

These professionals will usually help you to develop an effective sanitation program, specifically tailored to your facility utilizing the right combination of cleaners and sanitizers for your soil types.