Pollution Prevention (P2) for Janitorial Services

Janitorial services can promote employee health and safety and minimize these risks through:

- **Substitution**
- **Prevention**
- **Reduction**

Janitorial services are essential for maintaining a healthy, productive workplace but often use cleaning products that can pose risks to human health and the environment. What can be done?

### Substitution of Safer Cleaning Products

Choose to clean, sanitize, or disinfect as needed. Cleaners are products intended to remove dirt. Sanitizers reduce the presence of microorganisms. Disinfectants destroy microorganisms, and are typically the most toxic. Determine what level of cleaning is required in each area of the facility and which type of product is most appropriate, then choose the least toxic product for the job. Sanitization might be needed in bathrooms and kitchens, for example, but not for general purpose cleaning in other facility areas. Surfaces should always be thoroughly cleaned before sanitizing or disinfecting for maximum effectiveness.

Search for cleaning products that are safer to use. Look at product labels and safety data sheets (SDS) to identify potential hazards in currently used products. Replace hazardous products with safer options that exhibit the following qualities:

- Low corrosivity
- Low flammability
- Low toxicity to humans and marine life
- Non-carcinogenic
- Low ozone-depleting compound (ODC) content
- Low volatile organic compound (VOC) content
- Biodegradable

The Environmental Protection Agency (EPA) has prepared a list of specifications, standards, and ecolabels that can help identify sustainable custodial products. The EPA Safer Choice program and the Toxics Use Reduction Institute (TURI) CleanerSolutions database can also be searched for specific products that have been identified as less toxic and are effective for different types of cleaning.

### Prevention of Contamination

Install easier to clean features in areas that are most likely to need cleaning. For example, kitchens or other areas where spills may occur should be non-carpeted. If spills occur frequently in other areas, identify the cause and address it directly. Dirt that is tracked in from outdoors can be reduced by placing dirt-trapping mats at all entrances. Airborne dust can be reduced by filtering facility air circulation and running it at positive pressure, so that dust is pushed outdoors rather than being pulled inside through building entrances.

### Reduction of Cleaning Product Use

Train employees in the proper use of safer cleaning products. Labor contributes as much as 90% of the costs of cleaning. In addition to improving worker safety and facility cleanliness, training employees can allow them to clean more efficiently by selecting the proper cleaning methods.
products, equipment, and techniques for each application. San Francisco Department of the Environment has prepared a Green Cleaning Program that covers green cleaning practices in dusting & polishing, floor care, food areas, and restrooms⁶.

Clean as needed, not according to a fixed schedule⁷. Build some flexibility into the cleaning schedule so that mild cleaning is carried out regularly and heavy duty jobs are only completed as needed. Stronger cleaning or disinfecting often uses more toxic chemicals and should be minimized. Mild cleaning may be more suitable for daily maintenance and can prevent buildup of problem areas.

Upgrade or replace cleaning equipment⁷. Modern equipment is designed to clean effectively while using less cleaning chemicals. Consider improved microfiber mops and cloths, mop buckets, and vacuum cleaners that can reduce the spread of dirt and airborne particulates. Replace aerosols with trigger spray bottles, which do not require propellant and can be refilled after use.

**Success Stories**

The Chelsea Soldiers’ Home in Massachusetts reduced its non-green chemical use by 22,500 pounds over two years and reduced spending on chemical purchases by 14% by converting all floor, restroom, and general cleaners to environmentally preferable alternatives. They worked with their vendor to find cleaners and equipment that were acceptable to janitorial staff and in some cases were faster and easier to clean with⁸.

Spectrum Health in Michigan saved $30,000 by implementing a green cleaning program. They identified and eliminated redundant cleaning products, substituted environmentally preferable products, and eliminated aerosol use. They also used floor mats and low-maintenance flooring to reduce the need for cleaning⁹.

**References**

1. OSHA. Protecting Workers Who Use Cleaning Chemicals.
4. EPA. Safer Choice.
5. TURI. CleanerSolutions Database.
8. Massachusetts Operational Services Division. Environmentally Preferable Products Purchasing Program Case Study--Going Green at the Chelsea Soldier’s Home.

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