Cleaning and Sanitation

Introduction

Poor indoor environmental quality (IEQ) can cause illness requiring absence from school and acute health symptoms that decrease performance while at school. Recent studies suggest that poor IEQ may directly reduce a person’s ability to perform specific mental tasks requiring concentration, calculation or memory. Research is also beginning to show linkages between IEQ and various emotional factors including image, self-esteem and attitude, all of which affect academic performance.

An effective school sanitation and cleaning program can have a profound positive impact on occupant health, well-being and performance. In his report titled “The Contribution of Restoration and Effective Operation and Maintenance Programs on Indoor Environmental Quality and Educational Performance in Schools,” noted environmental researcher, Dr. Michael Berry concluded the following:

“There is a demonstrated link between effective facility management programs for cleaning and maintenance and environmental quality of schools. The quality of the school environment, to include air quality, determines an overall sense of well-being and shapes attitudes of students, teachers and staff. Attitudes affect teaching and learning behavior. Behavior in turn affects teaching and academic performance.”

Proper cleaning and disinfection of frequent touch surfaces can significantly lower disease transmission via direct and indirect contact with contaminated surfaces. Proper management and disposal of food waste can minimize pest infestations and vector-borne diseases transmitted from flies, mosquitoes, cockroaches, etc. attracted to such waste. Thorough building cleaning constitutes a key component in any integrated pest management (IPM) program emphasizing common sense strategies to reduce sources of food, water and shelter for pests in the school setting.

Dust commonly found on the floors and surfaces of schools often includes a mixture of animal dander, dust mite allergen, cockroach allergen and mold spores. These substances are among the most powerful asthma triggers known to exist. By effectively removing dust from the learning environment and enforcing policies against the accumulation of clutter, schools can minimize occupant exposure to environmental asthma triggers and positively impact health outcomes for allergic and asthmatic individuals of all ages.

Planning for School Facilities Maintenance

An essential component of an effective school program is a well-conceived school facilities maintenance plan. A properly implemented plan provides school administrators comfort and confidence when contemplating the future of their campuses.

Unless facilities maintenance planning is a component of a greater organizational management plan, it is doomed to failure. After all, how else can maintenance planners be certain that other policymakers share their priorities? Or that funds will be available to achieve their goals? And how else can they learn about demographic and enrollment projections and the ensuing changes in building demand? Thus, facilities maintenance planning must be an element of the overall organizational strategy—part of the master plan.

Facilities maintenance does not occur in a vacuum. Stakeholder feedback provides new perspectives and fresh ideas to the planning process. Moreover, when stakeholders participate in organizational planning, they are more likely to buy into the strategies that they have helped to establish. “Buy-in” becomes especially significant when one recognizes that likely stakeholders in the facilities maintenance planning process include maintenance and custodial staff, teachers, parents, students, superintendents, principals, board members, school business officials and community groups.
The basic steps in the design and implementation of an effective cleaning and sanitation (C&S) program are as follows:

1. Survey the environment to determine C&S needs.
2. Devise a master C&S schedule.
3. Select and purchase cleaning materials.
4. Introduce the program to staff.
5. Supervise program implementation.
6. Monitor the program.

The C&S program should include a cleaning schedule for each area to have proper storage of items and the requirements for staff to be able to maintain a clutter-free and clean school environment. Staff should be responsible for maintaining their areas in a neat and sanitary manner which will compliment the efficacy of the overall program.

It must be emphasized to all building occupants that cleaning and sanitation are not merely the job of the building custodians. Everyone has a role in ensuring the school indoor environment is a clean, safe and healthy place for students, teachers and staff.

**ACTION ITEMS:**

1. Develop and implement a district-wide, site-specific building cleaning and sanitation program.
3. Implement a district-wide integrated pest management program.

**Sanitation & Waste Management Procedures**

**Trash & Food Waste**

**ACTION ITEMS:**

1. Ensure that trash, especially that which contains food waste, are removed frequently and are not left in buildings over an extended period of time (i.e. weekends or holidays).
2. Dispose properly and ensure that trash does not attract pests, birds, etc. nor create litter.
3. Ensure lids to trash containers are kept closed and seal properly to prevent pest infestations.
4. Make sure trash and recyclables are being separated properly.
5. Make sure occupants know how to separate recyclables.

Trash containing food waste should be pulled and disposed of daily. Trash containing nonfood waste should be pulled and disposed of before weekends and holidays.

**Hazardous Waste**

**ACTION ITEMS:**

1. Identify and catalog all hazardous materials on school property.
2. Assign disposal and storage responsibilities for each hazardous material identified.
3. Document, notify and report relevant information to building occupants according to SARA Title III. Right-to-know requirements affecting school districts include:
   - Emergency planning
• Community right-to-know reporting requirements
• Emergency release notification
• Toxic chemical release inventory reporting

4. Investigate less toxic alternatives to replace hazardous chemicals, products and procedures wherever practical.

**Recycling**

**ACTION ITEMS:**
1. Ensure that the building collection meets with the guidelines from the local recycling hauler and recycling facility.
2. Ensure that occupants understand what can be recycled and how it needs to be separated.
3. Food containers such as soda cans should be rinsed clean by occupants before placing in recycling containers so as to not attract pests.

**Cleaning Procedures**

**Dusting & Dust Mopping**

**ACTION ITEMS:**
1. Ensure that dust mops are properly treated (see “Product Selection”) to capture dust.
2. Use wide-area vacuums fitted with air filtering bags/filters.
3. Use lint-free, micro-fiber dusting cloths or a vacuum instead of feather dusters.

**Entryways**

**ACTION ITEMS:**
1. Clean entryways beginning outside the building.
2. Use walk-off matting outside and inside entry. Vacuum, sweep, cleaning these mats frequently, especially during inclement weather.
3. Make sure mopping solutions are kept clean using only the correct amount of cleaning chemical (see section on product selection). Do not overuse concentrated cleaning chemicals. Remake as necessary and dispose spent solution appropriately.
4. Use appropriate vacuums (see section on product selection). Dispose of captured material or empty bags before they become half full, then dispose properly.

**Resilient Floor Care**

**ACTION ITEMS - FLOOR FINISHING:**
1. Select only floor finishes consistent with manufacturer recommendations for each specific flooring material chosen.
2. Select appropriate metal-free floor finishes that are extremely durable to minimize the need for stripping and recoating.
3. Build a solid base, which can be between six and 12 coats for a 20 percent solids floor finish.
4. Develop a system to maintain floors on a daily basis, using walk-off mats, dust mopping or vacuuming.
5. Develop an interim restoration program to maintain adequate levels of floor finish and appearances.
ACTION ITEMS - FLOOR STRIPPING:

1. Notify occupants beforehand if floor stripping is scheduled.
2. Select the least toxic products available (see section on product selection). Mix and use products according to manufacturer’s directions.
3. Use the appropriate personal protective equipment. Gloves, goggles and non slip footwear are a must. Aprons, respirators may be necessary depending on products selected.
4. Ventilate both during and after stripping.

ACTION ITEMS – FLOOR RESTORATION/BURNISHING:

1. Ensure that adequate floor finish exists.
2. Select the appropriate restoration product. Water-based or low-VOC products are recommended (see section on product selection).
3. Apply in a stream or coarse spray to minimize amount that gets in the air to breathe and overspray. Do not over apply.
4. Select the appropriate equipment (see section on product selection). If burnishing, use a vacuum attachment. Use appropriate buffing/burnishing pads.

Carpet Care

ACTION ITEMS – VACUUM CLEANING

1. Ensure that vacuums are in good working order and using appropriate bags and/or filters.
2. Vacuum bags should be emptied or replaced when half full. Dispose properly.
3. Clean up spills while they are still fresh.
4. Minimize the amount of moisture used during cleaning.

ACTION ITEMS – EXTRACTION CLEANING

1. Minimize the amount of cleaning chemicals. Excess chemicals result in rapid re-soiling.
2. Use appropriately functioning equipment that will maximize the amount of water being extracted from the carpet to minimize moisture and potential for mold, mildew and bacterial growth.
3. After extraction of carpet areas that were flooded spray treat the area with a disinfectant solution (e.g., Micro-Ban) to prevent mold, mildew and bacteria growth.
4. Increase ventilation, open windows if weather allows and use fans to dry carpets quickly. Carpets should be completely dry within 24 hours.
5. Dispose of cleaning solutions properly.

Food Areas (Cafeterias & Break rooms)

ACTION ITEMS:

1. Clean and sanitize floors, tables and other frequent touch surfaces daily or more often, as necessary.
2. Separate recyclables from trash and makes sure recyclable areas are kept clean (i.e. rinse soda cans) not to attract pests.
3. Make sure that occupants understand how to properly separate trash and recyclables and proper disposal of each.
4. Make sure that waste containers are covered and emptied at least daily.
Restrooms

**ACTION ITEMS:**

1. Make sure that sanitizing and disinfecting solutions are prepared and used properly (i.e. dwell time) and remix as required.
2. Frequently clean surfaces that hands touch to eliminate the spread of germs (i.e. door knobs, light switches, handles, etc.).
3. Be sure to clean the underside of urinals and toilets to control the growth of bacteria and their associated odors.
4. Dry floors quickly to eliminate slips and falls and to prevent the buildup of bacteria, mold and mildew.
5. Post *WET FLOOR* warning signs at restroom entrances during floor-cleaning operations and restrict access until floors have completely dried to prevent slips and falls.

Spills

**ACTION ITEMS – GENERAL SPILLS:**

1. Clean spills while still fresh to minimize occupant exposures and damage to the building
2. Use the proper cleaning solutions in the minimum quantity necessary.
3. Dispose of spilled material and absorbents properly.
4. Ensure that occupants know whom to contact in the event of a spill.

**ACTION ITEMS – BLOODBORNE PATHOGENS:**

1. Use safety cones or other means to make sure that occupants do not come in contact with spill.
2. Use proper personal protective equipment (i.e. gloves, goggles).
3. Disinfect area with appropriate solution.
4. Dispose properly in a red bag.

Cleaning Products & Equipment

**ACTION ITEMS – Cleaning Solution Dilution and Preparation**

1. Use appropriate protective equipment when mixing concentrated cleaning products.
2. Follow manufacturer's dilution directions. Do not under- or over-dilute concentrated cleaning products.
3. Make sure that spray bottles (secondary containers) have appropriate labels.
4. Never mix different cleaning products together.

**ACTION ITEMS – Janitorial Equipment**

1. Employ vacuums with high efficiency particulate air (HEPA) filtration capable of trapping 99.97 percent of all airborne particles that are collected by the vacuum. It is preferable to use vacuums with a beater bar to increase the amount of soil removal.
Sanitation in Specialty Classrooms (Science, Visual Arts, Industrial Arts, Consumer Science, Etc.)

ACTION ITEMS – HOUSEKEEPING:
1. Keep work area neat and free of any unnecessary objects.
2. Thoroughly clean your work space at the end of the class period.
3. Do not block the sink drains with debris.
4. Never block access to exits or emergency equipment.
5. Inspect all equipment for damage (cracks, defects, etc.) prior to use; do not use damaged equipment.
6. Never pour chemical waste into the sink drains or wastebaskets.
7. Place chemical waste in appropriately labeled waste containers.
8. Properly dispose of broken glassware and other sharp objects (e.g., syringe needles) immediately in designated containers.
9. Properly dispose of weigh boats, gloves, filter paper and paper towels in the laboratory.

ACTION ITEMS – HYGIENE PRACTICES:
1. Keep your hands away from your face, eyes, mouth and body while using chemicals.
2. Food and drink, open or closed, should be STRICTLY PROHIBITED from the specialty classroom, laboratory or chemical storage areas.
3. Never use laboratory glassware for eating or drinking purposes.
4. Do not apply cosmetics while in the lab or storage area.
5. Wash hands after removing gloves and before leaving the laboratory.
6. Remove any protective equipment (i.e., gloves, lab coat or apron, chemical splash goggles) before leaving the laboratory.

References & Resources
6. Ohio EPA Division of Hazardous Waste Management, [http://www.epa.state.oh.us/dhwm](http://www.epa.state.oh.us/dhwm).