SSC PURELY GREEN STANDARD

The SSC Purely Green Standard was written to encourage the use of environmentally responsible chemicals, equipment, and processes, as well as protecting the health of those, both in and around the buildings that adhere to the standard. It also encourages decisions, in the tasks that we do every day, which will result in a less harmful impact on the environment both locally and worldwide. The standard aims to reduce exposure to harmful chemicals, improve indoor air quality and conserve natural resources all while maintaining a clean learning environment. It is our hope that the standard will also educate workers and students alike so that environmentally conscious decisions will continue beyond these walls and will impact those in the community; all of which will result in a cleaner, healthier world for everyone.

The implementation of the standard will consist of two categories: supplies and procedures. Supplies will consist of the tools and chemicals used to complete a task and procedures will address the way we perform cleaning tasks.

SUPPLIES

1. CLEANING CHEMICALS

Environmentally responsible chemicals (ERCs) should be used in day-to-day cleaning duties. On occasion, some jobs may require the use of a specialized non-green chemical. Daily duties such as mopping, autoscrubbing, cleaning glass or mirrors and standard spray and wipe applications should enlist the use of ERCs, though.

Requirements:

A. Chemicals should be certified by or meet the standard of a reputable third-party company. Some of these might include Green Seal, DFE, or Ecologo.
B. Chemicals should be run through a dilution control system or have a quantifiable, written method too effectively and correctly measure and dilute chemicals. Free pouring of chemicals is not permissible.

C. Chemicals should be purchased in concentrate form and not in a ready to use format. This will reduce the shipping of water, the amount of packaging requirements and will reduce storage space.
D. The use of chemicals that are effective with cold water is encouraged. Cold water requires less energy than having to heat water.
E. The use of ionized, electronically charged, or ozonized water is a great way to virtually eliminate chemicals all together. If it makes sense to your application and financially, it would be an excellent alternative to using chemicals.
F. Disinfectants are excluded from this category as they are considered as pesticides and cannot be considered green. With that in mind, use these chemicals wisely and only in areas that require disinfection.
G. There should be an understanding of use for disinfectants as they may require a dwell time to effectively do their job. Employees should be trained to use these chemicals appropriately with the correct dilution and chemical dwell time.
H. Hand soaps and hand cleaners should be certified by or meet the certifying standards of a third-party company such as Green Seal, DFE or Ecologo.
I. The use of foaming hand cleaners is encouraged as the introduction of foam reduces the amount of product needed to effectively wash, thus reducing the amount of product required. These soaps should also be third party certified or equivalent.
J. The use of antibacterial and antimicrobial soaps should be eliminated. The purpose of soap is to remove soil from hands and be rinsed down the drain. The use of antibacterial soaps can lead to resistant bacteria and superbugs that will not respond to antibiotics.

2. <u>TOWELS, TISSUE, and CAN LINERS</u>

Tons of towel and tissue waste ends up in the landfill, plus the making of these products and the harvesting of the raw materials has a huge environmental impact. To reduce our usage and lessen the environmental strain, we make the following recommendations:

A. Following the EPA's guidelines for post-consumer recovered content, the requirements should meet or exceed the following percentages: Bathroom tissue 20% post-consumer; paper towels 40% post-consumer.
B. Towels and tissue should meet the standards of a third-party certifying body.
C. Bleached towels and tissue should be processed chlorine free
D. The installation of hand dryers as opposed to towels would virtually eliminate paper waste, but is not a requirement
E. Towels should be used in larger capacity rolls as opposed to folded towels or center pull towels. This will reduce paper waste.
F. High-capacity tissue rolls should be utilized as opposed to household rolls. This will also reduce waste.
G. There should be an effort to "right size" can liners. Be sure that the appropriate bag size is used for each container and that the appropriate gauge is used for the task. For example, a liner should not hang the side of the container more than a few inches and a heavy gauge bag should not be used when collecting paper waste. This will reduce waste and save money by purchasing the correct can liner.

3. <u>TOOLS</u>

The cleaning industry has made major strides in innovating tools that help us be cleaner and reduce consumption and waste. The development of tools such as microfiber has revolutionized cleaning by utilizing reusable products and allowing for more efficient cleaning. Recommendations for implementation of the standard are as follows:

a. Microfiber towels, dusters, and mops (flat or traditional) should be implemented. The microfiber products are highly launderable and do an excellent job in picking up and retaining soils. They have a long-life cycle, which reduces waste, and their use will result in an overall cleaner building.
b. Use a color code system to reduce cross contamination. Designate a color for each cleaning sector. For example, use one color in a bathroom, a second in a cafeteria and a third for general purposes.

c. Due to the cleaning power of microfiber, it may be possible to eliminate chemicals on certain tasks. A wet microfiber cloth can clean glass and mirrors very effectively and may even be sufficient for some spray and wipe applications. Experiment with eliminating chemicals in certain tasks. This is not a requirement, but a recommendation.
d. Utilization of a mopping system with separate clean water and dirty water reservoirs. Keeping the clean water and dirty water separate will reduce contamination, reduce the soil being put back on the floor and will reduce the amount of water changes required.
e. Utilization of non-bucket mopping systems. Microfiber systems with a reservoir on the handle or in a backpack are efficient and extremely mobile. The use of a charging bucket may be effective as well, where there is a stack of pre-treated mops in a bucket ready to change out as they are soiled.
f. Use microfiber dusters or cloths for dusting. They will reduce contaminates in the air by capturing the dust in their fibers as opposed to brushing them into the air.

4. <u>EQUIPMENT AND MACHINES</u>

The cleaning industry has also made strides on the equipment side.

They have made machines more efficient, quieter and with improved filtration. Batteries have become safer, propane powered engines run cleaner, and machines are now able to contain particulates which were once thrown into the air. The following are machine recommendations:

a. Vacuum cleaners should meet the Carpet and Rug Institute's (CRI) Seal of Approval requirements. CRI utilizes three criteria to rate vacuum performance, soil removal, dust containment, and surface appearance change.
b. Vacuums should be equipped with HEPA filtration. HEPA filters remove 99.97% of particulates at least 0.3 microns in size. Training should also be issued on when to change the bags so that the vacuum runs efficiently and is able to attain its potential level of filtration. There should also be a scheduled inspection of the filters to ensure proper air flow.
c. Vacuums should operate at a noise level of less than 70 dba.

d. Propane powered equipment must have low emissions engines that meet the California Air Resources Board requirements or equivalent. They should also be equipped with emissions monitoring that automatically shuts the machine down with elevated exhaust emissions. They should also be operated in times of low building occupancy.
e. A written maintenance plan should be established for the batteries in battery powered equipment. This will increase the life of the batteries and increase the runtime over the life of the battery. More preferably, utilization of a battery management system or maintenance free batteries is encouraged.
f. Carpet extraction machines should meet the CRI seal of approval. When cleaning carpet, they should not remain wet for a period over twelve hours. Both natural and mechanical methods of drying should be enlisted to prevent mold and mildew from developing.
g. Autoscrubbers should be equipped with a variable chemical flow system so that optimal solution dispersal can be utilized. The use of chemical free systems is acceptable as well.

PROCEDURES

The tools and equipment outlined in the following section should all comply with the standards as mentioned in the previous section.

1. Hard floor Care

A. Green certified floor finishes are certainly permitted and depending on the account and city/county requirements, may be mandatory. If they are not required by contract, it may be better to use traditional floor finishes. Green finish technology has not yet reached the level of performance, in most settings, to justify its use in all accounts. Until technology has progressed, it would be better to stay with traditional finishes and utilize an effective care program to extend the life and reduce the strip cycles of finished floors.
B. There should be a documented floor care schedule to include dust mopping with a reusable, washable dust mop or vacuuming followed by autoscrubbing or damp mopping. The frequencies should be determined based on the soil load and the ability

to effectively keep the areas clean. Main traffic areas should receive attention daily to allow for greater wear of the floor finish.

C. A burnishing schedule should be devised to keep the floor in good appearance. It will also extend the life of the existing floor finish.

D. Periodic restoration should be determined based on wear as opposed to a predetermined time. It may not always be necessary to strip a floor. If there is sufficient finish on the flooring surface, a deep scrub, and an application of additional coats of finish would be preferable to reduce the amount of contaminates introduced into the water system.

2. <u>ENTRYWAYS</u>

A. Entryways are a key area to patrol to keep soils from entering a building. The more that can be stopped at the door, the greater chance there is at the entire building being cleaner and looking better. There should be a mat with some type of scraping ability at each main entry way. This mat should be able to remove large soils and be the first line of defense from debris getting into the building. The main entryways should also have from 6 to 15 feet of matting inside the doorway. The more matting there is the more dirt that is collected before it reaches the floor. The matting rules apply to main entryways; secondary entrances should be fitted as space allows but should follow as closely as possible as space allows.

B. There should be a documented schedule to clean the entrance carpeting. Because entryway systems capture so much dirt, they should be vacuumed daily. Failure to do so could result in the mat becoming overloaded and not being able to capture the amount of soil that it should.

C. Policing the entryways and sidewalks leading up to the building is another excellent line of defense from soils being tracked inside. There is more soil that is stopped from getting to the floors, will, once again, extend the life of the flooring and indoor air quality of the facility.

3. <u>CARPETED SURFACES</u>

A. Vacuuming is crucial to keeping carpeting performing at its peak level and can extend the life of the carpet. Vacuuming should be broken down into three basic traffic areas, high, moderate, and low. There should be a documented schedule for each of the three areas.
B. High traffic areas should be vacuumed daily, and, if needed, more often. Hitting high traffic areas will keep the spreading of soils to a minimum and will reduce the likelihood of contaminants becoming airborne.
C. Moderate traffic areas should be addressed two to three times a week while low traffic areas should be vacuumed at least once a week or as needed.
D. As traffic patterns are not always constant, the schedule should be adjustable as some areas may see an increase or decrease in traffic, depending on special events or other factors. These instances should be taken into consideration when setting a schedule.
E. To maximize carpets appearance, a daily spot and spill removal plan should be in place. The quicker that a spot can be treated, the better the appearance will be. Different spots will require different approaches in treatment. A spotting chart is recommended for quick identification and treatment of a soil.
F. A documented process for restorative cleaning should be established. Restoration should include five basic steps, dry vacuuming, soil suspension or pretreating, extraction, finishing and drying.
G. To prevent the growth of bacteria and fungi, rapid drying processes should be applied. Moth natural and mechanical elements should be used to dry the carpet as quickly as possible. The carpet should not be damp for more than twelve hours.

4. <u>Bathrooms/Cafeterias – Disinfection</u>

A. For disinfectants and sanitizers to work properly, they require a dwell time to meet their kill claim. Proper dilution is also required for these products to do their jobs properly. There should be documented instructions and employee training on both dwell time and dilution of disinfectants. Because not all disinfectants and sanitizers are the same

dwell time or dilution rate, and different bacteria and viruses take different dwell times, training should be product and site specific.

B. To reduce cross contamination, measures should be taken to ensure soiled cleaning apparatuses are not used in different areas. For example, after cleaning a bathroom, one would not take the same mop or rag and clean a classroom. Color coding is one recommended way to reduce cross contamination.
C. When cleaning a food contact surface, an appropriate chemical should be used to ensure safety if food is dropped on a cleaned surface. A documented program should be in place not only outlining the proper chemicals in these areas, but whether a clean rinse should follow up. Because not all chemicals are the same, this should be site specific.
D. If a chemical is job specific, proper use of that chemical should be documented. For example, products with live enzymes targeting bacterial matter such as urine should only be used in places where urine would be exposed. It should not be used for mopping hallways or wiping down surfaces.

5. <u>GENERAL CLEANING</u>

A. A documented training program should be in place for each type of area being cleaned in the building. For example, there should be documented procedures in place for cleaning a classroom, a cafeteria, a restroom and so on. Considerations should be made for time efficiencies as well as environmental stewardship while setting up these guidelines. Since both buildings and contracts are site specific, so should be the procedures.
B. Implement ways to reduce water and chemical consumption. Spray chemicals directly on a rag and then wipe as opposed to spraying a surface. This will reduce use and eliminate overspray that may get on unintended surfaces. Use microfiber flat mops or dual bucket systems when mopping, have a variable speed chemical pump on autoscrubbers to maximize chemical use while still effectively cleaning.

6. INDOOR AIR QUALITY

A. The greater number of particulates captured the fewer that are being breathed in the air. Take steps to reduce soils that could be potentially airborne through an effective dust mopping, damp mopping/autoscrubbing and vacuuming program.
B. There should be a documented hvac check program in place. Filters should be inspected and or changed monthly to ensure proper air flow of the system. Clogged filters reduce hvac efficiency and reduce the life of the systems by increasing the workload on the units.
C. Vacuum bags should be changed or emptied in a well-ventilated area and every step should be made to prevent dust from escaping into the building.

7. THE WASTE HIERARCHY

The following are not requirements but could serve as suggestions in coordination with client or building occupant participation.

A. The waste hierarchy has been a long standing, very recognizable symbol for environmental stewardship. Find ways to make the mantra: reduce, reuse, and recycle a reality. Keep in mind that recycling, while an environmentally responsible decision is a final resort. Reducing consumption and reusing or repurposing items are much better options and should be considered before tossing items into the recycling bin.
B. Consider reducing paper usage by making two sided copies. This could cut down on consumption. If feasible, consider reusing one sided copies and printing on the clean side. There should be fewer official tasks where this option may be applicable.
C. Get students and faculty involved by turning out the lights in a room when not in use or consider motion sensors that can take the human element out. Use natural light whenever possible. The need for overhead lighting might be altogether eliminated in certain spaces.
D. Consider de-bulbing vending machines. The beverage sign is a constant use of energy but is nothing more than an advertising tool in most situations. Request that the vendor remove the bulbs to reduce energy consumption.

E. Consider auto sleep mode on computers and monitors. Many monitors can be set to sleep after five minutes of inactivity.
F. Consider adjusting the thermostat a few degrees up or back depending on the season. Just a few degrees difference can make a large difference in energy usage.
G. Set up a recycling program. Many Local waste collection services have recycling plans available. Recycling may reduce the cost of waste pick up by extending the amount of time between container empties. It would be feasible to see a weekly dumpster service reduced to biweekly in some circumstances.
H. Consider changing to high efficiency light bulbs and ballasts. The long-term effect would be energy savings, plus many power companies are offering incentives on lighting changes.
I. Consider composting leftover food that could then be used to fertilize plants, shrubs, and garden beds.
J. Finally, get the community involved. Have an environmental awareness week, encourage stewardship projects for classes. Have students oversee initiatives such as building a water collection system with rain barrels. If the community gets involved, it will make all these processes easier and it will lead to a healthier, cleaner earth for everyone.