



FACILITIES SERVICES

Green Cleaning Practices and Procedures

The San Mateo County Community College District is committed to providing healthy, clean, and well-maintained buildings that follow Green Cleaning practices and procedures as required by USGBC LEED-NC and Global Eco-labeling standards. This document outlines the specific cleaning practices that will be adhered to at Skyline College Building 4 - Multicultural Center, Cosmetology & Administration Building. These practices and procedures will maintain good indoor air quality, increase occupant health and comfort, assure a clean building, and provide a healthy environment for the Custodial crews. In addition, we are committed to minimizing the impact on the local environment by using environmentally safe, low-impact, cleaning chemicals in our buildings.

Components of the Green Cleaning Program include:

- Chemicals and products
- Dilution control system
- Miscellaneous supplies and microfiber materials
- Floor products
- Powered maintenance equipment
- Hand hygiene
- Staffing and Training
- Procedures
- Communications

Use of sustainable cleaning products. The majority of the cleaning products used in Building 4 are Green Seal or EcoLogo certified which meet LEED-NC standards. When Green Seal or EcoLogo certified products are not available, cleaning products comply with the California Code of Regulation maximum allowable VOC levels. In addition, if Green Seal or EcoLogo products are not available, the San Mateo County Community College District will use a more environmentally friendly product than the conventional version of the cleaning agent. All hand soaps must not contain any antimicrobial agents. Any changes to cleaning products will be reviewed jointly by the Supervisor of Custodial Operations, Manny Granillo, the Facility Operations Manager, Richard Inokuchi, and myself, before they will be used for cleaning in Building 4. Custodians are not allowed to bring their own cleaning materials onsite. Custodial supplies currently used at Building 4 are:

Description	Sustainability Criteria
3M Cleaner Glass 1L	Green Seal Certified GS-37
3M Cleaner 44L Bathroom	Green Seal Certified GS-37
3M Cleaner 8L AP	Green Seal Certified GS-37

Bleach Clorox Ultra	Meets CA Code of Max VOC
Allstate Liner HD 24X24 6 Microns	Meets EPA Min PCR Content
Allstate Liner HD 24X33 6 Microns	Meets EPA Min PCR Content
Allstate Liner HD 33X40 22 Microns	Meets EPA Min PCR Content
Allstate Liner HD 43X48 22 Microns Black	Meets EPA Min PCR Content
SCA Towel Roll Brown 290088	EcoLogo & GS Certified
SCA Tissue/TP 1PL Jumbo White 12013902	EcoLogo Certified
Optima Towel MF 1PL Natural 80-760	Meets EPA Min PCR Content
GP Tissue/TP 2PL Compact 19375	EcoLogo Certified
GOJO Green Seal Bulk Soap 4/1Gal- 1865	GS and EcoLogo certified
Mop String 16oz HDTY ST45R UNG Red Micro 5/CS	Part of a high performance cleaning program
Mop String 16oz HDTY ST45B UNG Blue Micro 5/CS	Part of a high performance cleaning program
Wypall Blue Microfiber 83620 KCC Bath 4/6PK/CS	Part of a high performance cleaning program
Wypall Red Microfiber 83980 KCC Micraban 4/6PK/CS	Part of a high performance cleaning program

Use of chemical concentrates and appropriate dilution systems. The San Mateo County Community College District uses a proportioning system in Building 4 per LEED requirements. We use the 3M Twist 'n Fill Cleaning Chemical Management System to mix the concentrated cleaning solutions. The system is user friendly and requires no manual measurement. Operating Instructions are in a binder adjacent to the dilution systems in the Custodial Closets. The systems are checked monthly by the Lead Custodian to ensure they are operating as designed. Features include:

- Closed dilution system.
- Portion controlled/locked-in system. You cannot tamper with or change dilution rates.
- System attaches directly to the faucet.
- Easy slide bottle feature allows for quick product changes.
- Instantly primes. When disengaged, product instantly drains back into the container. No cross contamination.
- Each product is numbered and color coded for simplified use. The concentrated bottles and spray bottles are both color coded.
- The system is more accurate over varying water pressure situations than gravity drip systems.
- Upright bottle design will not leak or drip.
- A Hazardous Spill Kit is nearby, clearly labeled, and with instructions on its proper use.

Use of EPA Compliant Disposable Janitorial Paper Products and Trash Can Liners. The San Mateo County Community College District uses janitorial paper products and trash can liners that meet or exceed the minimum requirements by the Environmental Protection Agency for recycled content, or they are certified by Green Seal or EcoLogo, or they are made from “tree-free” fibers or from “rapidly renewable” resource as defined in the LEED-NC Reference Guide. The EPA requirements are:

Product	Recycled Content Post-Consumer Waste	Total Recycled Content
Bathroom Tissue	20-60 %	20-100%
Paper Towels	40-60%	40-100%
Paper Napkins	30-60%	30-100%
Facial Tissue	10-15%	10-100%
General Purpose Wipers	40%	40-100%
Plastic Trash Bags	10-100%	n/a

Use of third party certified Green floor finishes and strippers. The San Mateo County Community College District is exploring the use of GS-40 Green Seal certified floor finishes and strippers as a possible option if its purchase can fall within budget constraints. This product will be zinc-free and provide great performance.

Use of low environmental impact cleaning equipment that reduces impact on indoor air quality. The San Mateo County Community College District has instituted the following requirements for our cleaning equipment for use in the Building 4. Examples of standards and procedures include:

- Vacuum cleaners that meet CRI (Carpet and Rug Institute) “Green Label” Testing Program with sound levels less than 70 dBA.
- All powered maintenance equipment including floors buffers, burnishers, and automatic scrubbers must be equipped with vacuum, guards, and/or other devices for capturing fine particulates and have sound levels less than 70dBA.
- All hot water extractors for deep cleaning of carpets must be capable of removing sufficient moisture such that carpets dry in less than 24 hours.
- Whenever possible, all cleaning equipment should be ergonomically designed to minimize vibration, noise, and user fatigue.
- Battery operated machines should use environmentally preferable batteries wherever possible.
- Propane-powered floor equipment must have high-efficiency, low-emissions engines with fewer than 90 dBA.
- Automatic scrubbing machines are equipped with variable-speed feed pumps to optimize the use of cleaning fluids.
- Where appropriate, active microfiber technology is used to reduce cleaning chemical consumption and prolong the life of disposable cleaning pads.
- Equipment will have rubber bumpers to reduce potential damage to building surfaces.
- A log book will be kept for all powered cleaning equipment to document the date of purchase and all repair and maintenance activities. The log book will include vendor cut sheets for each type of equipment. Below is the list of equipment procured for use solely in Building 4:

<u>Description</u>	<u>Qty</u>
Hurricane Cordless Floor Dryer	4
Proteam Back Pack Vacuum	4
Focus II Boost 28 Extractor	1
Summit 20D Wet/Dry Vacuum with Dual Motor	1

Use of hand soap that does not contain antimicrobial agents (other than a preservative system), except where required by health codes and other regulations (i.e. food service and health care requirements). The San Mateo County Community College District's hand soap does not contain any antimicrobial agents. We are using GS-41 GOJO soap. Please refer to the MSDS sheet for additional information. A proper hand washing system is in place in all Wet Custodial Closets and it can be supplemented with alcohol-based hand sanitizers. To encourage proper hand washing, signs will be displayed in every restroom.

Staffing and Training:

Staffing Requirements. The definition of Green Cleaning is to lessen the impact of products and services on the health and the environment when compared to similar products and services used for the same purpose. We will find that staffing requirements will not change much for Green Cleaning. The major changes will be in products, equipment and supplies - not in procedures and time requirements.

The 2008 LEED-NC document, Indoor Environmental Quality Credit 3, requires the use of the APPA Leadership in Education Facilities Custodial Staffing Guidelines to determine the appearance and staffing levels of facilities. Building 4 is staffed with 2.75 FTE during the evenings; each FTE covering approximately 24,500 square feet in Building 4. They are responsible for cleaning offices, restrooms, locker rooms, classrooms, lab areas, lobbies, hallways, entranceways, stairways, break and meal rooms, elevators, and emptying trash and recyclable materials.

Training of maintenance personnel. The San Mateo County Community College District provides initial and ongoing training for our employees. Training may take the form of classroom and/or hands-on instruction. Training topics include but are not limited to:

- Chemical & Chemical Management
 - Proper mixing/diluting of concentrated chemicals
 - Safe handling and disposal of cleaning materials
 - How to read a MSDS sheet and the locations of the MSDS binders
 - Recycling of chemical packaging
- Equipment and Ergonomics
 - Training that includes safe lifting practices and proper equipment handling
 - How to properly wear and use the CRI green label back pack vacuum
- Microfiber mopping and microfiber cleaning system
 - Use of microfiber cloths, mops, dust mops, and high dusters.
 - Proper cleaning of microfiber products
- Proper handling of trash and recycling

In addition, we can provide training logs showing the subject, dates, and names of the Custodians trained. We provide monthly trainings for our Custodians in other areas such as Hazardous Spills & Blood-borne Pathogens, Biohazard Material Handling, Cleaning Chemical Handling, Hard Floor Care, Carpet Care, Dusting, Restroom Cleaning, Indoor Environmental Quality, and Safety and Ergonomics. We also provide weekly 'Tool Box' Safety Training on a variety of Custodial care, cleaning, and workplace subjects.

Standard Operating Procedures:

Green Cleaning Practices and Procedures. In general, Green Cleaning procedures are similar to traditional procedures. The differences are more a matter of focus than one of technique. The focus of this section is on pollution prevention strategies and some specific opportunities to modify traditional procedures to reduce impacts on health and the environment.

Vulnerable Populations. One of the primary goals of a Green Cleaning Program is to protect the health of building occupants. This is done in many ways, including the identification and removal of harmful contaminants, such as particulates, mold spores, bacteria and viruses. While the cleaning process can reduce exposure to these and other harmful contaminants, unfortunately the process of cleaning and the cleaning products themselves can cause adverse health impacts to some building occupants. This is especially true for those who are very sensitive to odors, those with pre-existing health conditions such as asthma and allergies, those with reduced immune system such as those recovering from cancer, and other complex health conditions.

- Identify those building occupants with individual needs and sensitivities.
- Develop a plan to address the individual needs of people with sensitivities.
- Change the products and/or cleaning schedules as necessary to accommodate their individual needs.
- Address ventilation requirements to help mitigate the problems.

While in some cases changing the cleaning products or cleaning schedule may address the situation, in other times relocating the individual or reconfiguring their workspace may be necessary, which will need to be continually addressed with the respective building occupant, their Administrators, and Facilities staff. In many situations these issues cannot be resolved by the cleaning practices, but requires everyone, including the affected individual, to work together to achieve the best outcome.

Dusting and Dust Mopping. Traditional dusting and dust mopping techniques frequently move dust and other contaminants from one area to another, such as from a bookshelf to the floor. It is important to recognize that moving the dust around is more than just an efficiency issue. Dusting and dust mopping activities that do not capture soils frequently stir them into the air where people can then inhale the particles, which for some can become a serious health hazard.

- Ensure that dust mops are properly treated to capture dust.
- Use wide area vacuums fitted with appropriate bags and HEPA filters, as much as possible.
- Use microfiber cloths and mops.
- Vacuum instead of using feather dusters.

In addition to the traditional procedures for dusting and dust mopping, it is preferable to minimize chemical dust treatments or to use a vacuum cleaner fitted with a wide area hard floor attachment as compared to a dust mop. If dust mopping is used, the use of microfiber dust mops with the widest swivel action mop possible (based on the size of the area and the physical abilities of the custodial worker) is preferred. Feather dusters should not be used. It is preferable to dust with micro fiber clothes that are folded like a handkerchief to expose multiple sides for absorbing dust.

Dust Mopping -

- Use a microfiber dust mop with fringe.
- Dust mop the area using a continuous motion without lifting the mop from the floor.

- Begin with the mop next to the wall and walk to the other end of the work area. At the opposite end, pivot the dust mop so that the leading edge remains the same. Return to the opposite end. Overlap the previously mopped path by 2 to 4 inches to ensure complete coverage.
- One pass with a microfiber mop removes dirt, dust, and abrasive particles without leaving the floor dull or slippery. Sweep accumulated soil to a collection area. Then lightly shake loose soil from the dust mop and continue. Remove gum, tape, or other sticky residue with a scraper, using care not to mar or scratch the floor finish. Continue the dust mopping process until the entire area has been dust mopped. When completely finished, pick up the collected debris using a counter brush and dust-pan.
- Clean excess dust from the mop head. Place the mop over a trash container. Brush with a stiff bristle brush in a firm, downward motion. Or replace the mop head with a clean one.
- Store the mop in a hanging position. Do not store the dust mop on the floor because the mop fibers will become matted.
- Launder soiled microfiber dust mop heads. Soak mop heads overnight in a neutral pH cleaning solution. Rinse thoroughly, wring out, and hang to dry.

Entryways. Entryways are the first line of defense against contaminants. Therefore, special effort should be focused on these areas. Begin by cleaning outside walkways leading into the building. This is especially true during periods of inclement weather.

- Clean entryways beginning from outside the building.
- Use walk-off matting outside and inside entries. Vacuum or sweep these mats daily, especially during periods of inclement weather.
- Make sure mopping solutions are kept clean using only the correct amount of cleaning chemical. Do not overuse the concentrated cleaning chemicals. Re-mix as necessary and dispose spent solution appropriately.
- Use appropriate vacuums. Dispose captured material or empty bags before half full appropriately.

Large outside entryway areas should be swept daily (weather permitting) with a mechanized sweeper and smaller areas with a large, high-quality push broom. Outdoor areas should be periodically cleaned with a high-pressure power washer. During periods of rain or heavy mist, procedures need to be put into place to first protect occupants and visitors from slips and falls.

Use walk-off mats both outside the entryways (scraper mats), as well as just inside the entry doors. The matting should be long enough so that as an adult walks across the mat each foot hits the mat a least twice (a minimum of ten feet to earn LEED-NC point). Walk-off mats should not just be used during periods of inclement weather, but all year round. Vacuum walk-off mats at least once a day and more frequently in high traffic entryways and vacuum in both directions. Walk-off mats must be cleaned frequently and do not forget to periodically clean underneath them as well.

Floor Care. The procedures for floor care in a Green Cleaning Program are similar in most instances with those of a traditional program. Beyond the traditional issues, floor care in a Green Cleaning Program address the selection of environmentally preferable products and equipment, along with some minor modifications of the procedures themselves.

- Select appropriate metal-free floor finishes that are extremely durable and minimize the need for stripping and recoating.
- Build a solid base, which can be between 6 to 12 coats for a 20% solid on floor finish.

- Develop a system to maintain floors on a daily basis, using walk-off mats, dust mopping or vacuuming.
- Develop interim and restorative programs to maintain adequate levels of floor finish and appearances.

In a Green Cleaning Program the primary effort should be a pollution prevention strategy, or one that minimizes the need to strip and recoat a floor, or extract a carpet.

It is preferable to conduct major cleaning activities on a weekend or during some other extended time periods, such as Spring, Summer, and Winter Breaks, when building occupants will not be in the facility. This allows maximum time for the building to be ventilated (flushed with fresh air) prior to the return of the building occupants.

Floor Care – Routine Maintenance – Daily Cleaning and Burnishing -

- Gather safety items and maintenance supplies.
- Routine cleaning - vacuum mats; dust mop, damp mop, or automatic scrub with a floor cleaner using a restorer.
- Clean equipment, restore supplies and report any problems to the Supervisor of Custodial Operations.

Proper Routine Maintenance is required to maintain the desired appearance level of the floor and extend the time between Interim and Restorative Maintenance procedures. Maximum floor appearance can only be achieved when the floor coating is as clean and smooth as possible.

A properly coated floor, with a smooth clean surface, protects the floor and provides excellent shine and easier maintenance. As the floor is exposed to traffic and soils, the surface is attacked. Soils penetrate the protective coating and cause the film to become rough, less slip resistant, and less reflective. In order to extend the life of the floor finish, Routine Maintenance needs to be performed.

Routine Maintenance Procedures -

- Wear the proper personal protective equipment or PPE to protect you from exposure to cleaning chemicals. Gloves, a mask, and goggles will prevent chemical splashes from coming into contact with your skin and eyes. Always wear the appropriate footwear for wet surfaces. Accidents will be limited when the proper caution signs are posted prior to cleaning, such as wet floor signs.
- Thoroughly vacuum all floor matting to remove soils and prevent them from being tracked onto the floor. Remove the matting so the floor can be cleaned.
- A long handle scraper or putty knife should be used to remove stickers, gum, and other debris adhered to the floor surface.
- Using a clean, dry dust mop, carefully sweep the entire floor surface to remove soils and fine debris. Not removed, these soils and fine debris will damage the floor finish film and cause premature deterioration of the finish.
- Fill the automatic scrubber with cool water and the selected floor cleaner per label directions.
- Attach the red scrub pad to the scrubber and be sure wet floors signs are properly placed.
- With the squeegee down, vacuum motor on, and brushes engaged, scrub the entire floor area.
- Once the floor is dry, it is ready to be burnished if desired.
- If the area is smaller or an auto scrubber is not available, use a mop and bucket, a standard floor machine, and a wet/dry vacuum. Mop on the cleaning solution, allow it to dwell for 5

minutes, scrub with the floor machine and attached red scrub pad, and then pick up the liquid with a wet/dry vacuum.

Use of a Restorer - When cleaning with a daily cleaner alone no longer produces the desired level of appearance, it is time to use a restorer product on the floor.

- Prepare the area the same as when cleaning the floor. Vacuum and remove matting. Loosen matted soils with a scraper and dust mop. Always place caution signs before applying cleaners.
- Fill the automatic scrubber solution tank with cool water and the Restorer per label directions.
- Attach the red scrub pad to the automatic scrubber. Scrub the entire floor area.
- Once dry, burnish the floor back to a smooth, clean, highly reflective shine. Select the proper burnishing pad and burnishing machine. Burnish the area until all the scuff marks, black heel marks, or scratches are removed.
- Dust mop the entire area to remove any residue from the floor.

Spray Buffing - Another Routine Maintenance method is spray buffing.

- Prepare the area the same as when cleaning the floor as previously mentioned. Use a spray buff spray that is designed to remove scuffs, black marks, and is effective when used with low speed floor machines and the recommended pad.
- Apply spray buff sparingly to the area being buffed.
- Using the floor machine and red pad, buff the area until all soils, scuffs and black marks are removed.
- After spray buffing has been completed, the area should be dust mopped to remove any residue from the floor.
- Remember to clean your equipment and supplies after each use. Clean equipment works better, lasts longer, and will make your next floor job easier. Also report any problems encountered to the Supervisor of Custodial Operations.

Floor Care – Interim Maintenance – Scrub and Recoat -

- Gather safety items and maintenance supplies.
- Insure there is adequate floor finish for this procedure.
- Clean equipment, restore supplies and report any problems.

The top scrub and re-coat procedure is employed when Routine Maintenance no longer produces the desired appearance levels. If further deterioration occurs, the floor will require stripping. During the top scrub and re-coat process, the top dirty layers of the floor finish are removed. Then two or more coats of finish are applied to restore the original shine of the floor. This allows the floor care program to start over with Routine Maintenance.

Interim Maintenance procedures -

- Wear the proper personal protective equipment or PPE to protect you from exposure to cleaning chemicals. Gloves, a mask, and goggles will prevent chemical splashes from coming into contact with your skin and eyes. Always wear the appropriate footwear for wet surfaces. Accidents will be limited when the proper caution signs are posted prior to cleaning, such as wet floor signs.
- You will need to prepare the area you will be cleaning by removing any furniture or other items.
- Using a floor scraper, remove stickers, gum, tape, or other debris. Then dust mop or sweep the floor.

- Prepare your equipment and cleaning solution.
- Before scrubbing, use a doodlebug and top scrub solution along the edges and hard to reach areas. Squeegee the solution into the path of the scrubber for pick up after scrubbing.
- To insure all embedded soils are removed, use a double scrub method.
 - This is accomplished by applying the top scrub solution with the squeegee up and the vacuum motor off.
 - Apply the solution over a section of the floor allowing the solution to dwell as you scrub the area.
 - As you begin the second pass, drop the squeegee and turn on the vacuum motor.
 - Pick up the solution and then check the floor for a consistent look. If there is still embedded dirt and discoloration, the floor most likely needs to be stripped. If the floor is clean, you are ready to apply new finish.
- For obstructed areas or if an auto scrubber is not available, use a mop and bucket, floor machine, and a wet/dry vacuum. Apply the top scrub solution with a mop, scrub the floor with the standard floor machine using a green or blue pad and recover the solution with the wet/dry vacuum. As with the automatic scrubber, use the doodlebug to scrub baseboards or hard to reach areas. Squeegee the solution into the path of the wet/dry vacuum for pick up.

Detail Rinse -

- After the area is cleaned, fill the auto scrubber with clean, cool water to detail rinse. If you did not have an auto scrubber, simply fill a mop bucket with clean cool water to detail rinse the floor. Be sure to mop the edges or hard to reach areas that the scrubber may have missed.
- Allow the floor to dry. A drying fan may be used to speed this process. Check the floor with the palm of your hand to be sure there is not any residue that may interfere with the new floor finish. If a white powder comes off on your hand, you will need to detail rinse again. Your objective is to have a clean, dry film-free floor to begin the application of the new finish.

Applying New Finish -

- The preferred method of applying floor finish is with a back pack applicator system (such as Betco Quick Coat II Applicator System). This tool will quickly and effectively assist you to professionally apply floor finish. Start by rinsing out the applicator mop and attach the mop and head to the handle. Choose the appropriate floor finish and place in the back pack.
- Puddle the finish to saturate the mop head. Simply squeeze the trigger to release the finish as needed. If finish is to be applied close to the wall, then run the applicator sideways along the wall.
- There are different techniques for applying the finish, but the following is recommended -
 - First, box out the area to be finished, but no larger than 8' by 20'. Squeeze the trigger as you outline the area to apply enough finish on the floor.
 - Use an overlapping figure-8 motion to evenly spread the finish. If more finish is needed, squeeze the trigger as the applicator head passes in front of you versus on the turns.
 - Do not constantly squeeze the trigger or too much finish will be applied. The weight of the applicator head and the overlapping figure-eight motion will evenly spread out the finish. Any ridges can easily be corrected and smoothed over with the applicator. Add more finish if streaking is apparent. Typically, 1,000 sq. ft. can be coated in approximately 10 minutes.
 - Use a can liner to store your applicator between coats.
 - To change bags, turn the valve to the off position and unscrew the connector and tubing. Attach a new bag and turn the valve back on.

- If a backpack applicator is not available, use a clean bucket and wringer and place a clean trash liner in the bucket before filling with your floor finishes. Using a finish mop, apply the finish to the floor. Always be sure the finish mop is clean and well rinsed out before you begin.
- Start by boxing out the area to be finished, normally no larger than 8' x 20'. Then apply the finish using an overlapping figure-eight motion.
- Conventional floor finish will require approximately 30 minutes drying under normal temperature and humidity conditions. Elevated temperatures and humidity may extend the dry time. After 10 minutes of drying, you can increase the airflow in the room by using a floor fan. Position the fan toward the ceiling to circulate the air.
- Because the floor has been deep scrubbed, multiple coats of finish will need to be applied. Consult label instructions for the proper number of coats.
- To prevent build up of finish along the edges, keep the first and last coats of finish approximately one tile's width away from the wall.
- Remember to clean your equipment and supplies after each use. Clean equipment works better, lasts longer, and will make your next floor job easier. Also report any problems encountered to the Supervisor of Custodial Operations.

Floor Care – Restorative Maintenance – Strip and Recoat -

- Notify the occupants before and if a strip-out is scheduled.
- Select the least toxic products available. Mix and use products according to manufacturer's directions.
- Use the appropriate personal protective equipment. Gloves, goggles, and non-slip foot ware are a must.
- Ventilate both during and after stripping.
- Clean equipment, restore supplies, and report any problems to the Supervisor of Custodial Operations.

Over time, traffic and soils take their toll on the finish and the Routine and Interim Maintenance procedures may no longer produce the desired results. When this happens, a procedure known as stripping and refinishing is required.

The stripping procedure involves the use of specially formulated floor strippers. When applied the stripping solution emulsifies the soiled layers of finish. The emulsified finish is then agitated with a scrubbing machine and black pad completely removing all layers of the finish. The slurry is then easily removed with a wet/dry vacuum or automatic scrubber. This leaves the floor surface clean, film-free, and ready for new layers of finish which will restore the floor to its original beauty.

Restorative Maintenance procedures -

- Wear the proper personal protective equipment or PPE to protect you from exposure to cleaning chemicals. Gloves and a mask, or goggles will prevent chemical splashes from coming into contact with your skin and eyes. Always wear the appropriate footwear for wet surfaces. Accidents will be limited when the proper caution signs are posted prior to cleaning, such as wet floor signs.
- You will need to prepare the area you will be cleaning by removing any furniture or other items.
- Using a floor scraper, remove stickers, gum, tape, or other debris. Then dust mop or sweep the floor.
- Prepare your equipment and stripping solution.
- Attach the black strip pad to the automatic scrubber or stripping machine and be sure the wet floor signs are properly placed.

Stripping the Floor -

- Apply the stripper solution freely to the floor. Allow the solution to stand for 10 minutes being careful to not let the solution dry. If the stripping solution does dry, simply apply more solution to the area and rescrub.
- Before stripping, use a doodlebug and stripping solution along the edges and hard to reach areas. Then squeegee the solution into the path of the scrubber for pick up.
- To insure all existing finish is removed, use a double scrub method -
 - Apply the solution over a section of the floor allowing it to dwell for 10 minutes.
 - Start scrubbing with the squeegee up and the vacuum motor off.
 - As you begin the second pass, drop the squeegee and turn on the vacuum motor.
 - Pick up the solution and then check the floor for any residual finish.
- For obstructed areas or if an automatic scrubber is not available, use a floor machine and a wet/dry vacuum to strip the floor. Apply the stripping solution with a mop, scrub the floor with the standard floor machine using a stripping pad and recover the solution with the wet/dry vacuum. As with the automatic scrubber, use the doodlebug to scrub baseboards and hard to reach areas and then squeegee the solution into the path of the wet/dry vacuum for pick up.

Detail Rinse the Floor - Most rinse-free stripper products do not require a flood rinse, the use of a detail rinse is recommended for areas the scrubber may have missed or hard to reach areas.

- Fill the auto scrubber with clean water and detail rinse the entire area. If an auto scrubber is not available, detail mop the floor with clean water.
- Once the area is completed, use a mop and rinse bucket to perform a detail rinse on the edges to reach any area the scrubber may have missed. Wring the mop out to keep the floor from getting too wet.
- Allow the floor to dry. A drying fan may be used to speed this process. Check the floor with the palm of your hand to be sure there is not any residue that may interfere with the new floor finish. If a white powder comes off on your hand, you will need to detail mop again. Your objective is to have a clean, dry film-free floor to begin the application of the new finish.

Apply the New Finish:

- The preferred method of applying floor finish is with a back pack applicator system. These tools will quickly and effectively assist you to professionally apply floor finish. Start by rinsing out the applicator mop and attach mop and head to the handle. Choose the appropriate floor finish and place in the back pack.
- Puddle the finish to saturate the mop head. Simply squeeze the trigger to release the finish as needed. If finish is to be applied close to the wall, then run the applicator sideways along the wall.
- There are different techniques for applying the finish, but the following is recommended -
 - First, box out the area to be finished, but no larger than 8' by 20'. Squeeze the trigger as you outline the area to apply enough finish on the floor.
 - Use an overlapping figure-8 motion to evenly spread the finish. If more finish is needed, squeeze the trigger as the applicator head passes in front of you versus on the turns.
- Do not constantly squeeze the trigger or too much finish will be applied. The weight of the applicator head and the overlapping figure-eight motion will evenly spread out the finish. Any ridges can easily be corrected and smoothed over with the applicator. Add more finish if

streaking is apparent. Typically, 1,000 sq. ft. can be coated in approximately 10 minutes with a backpack system.

- Simply use a can liner to store your applicator between coats. To change bags, turn the valve to the off position and unscrew the L-connector and tubing. Attach a new bag and turn the valve back on.
- If the back pack applicator is not available, use a clean bucket and wringer and place a clean trash liner in the bucket before filling with your floor finishes. Using a finish mop apply the finish to the floor. Always be sure the finish mop is clean and well rinsed out before you begin.
- Start by boxing out the area to be finished, normally no larger than 8' x 20'. Then apply the finish using an overlapping figure-eight motion.
- Conventional floor finish will require approximately 30 minutes drying under normal temperature and humidity conditions. Elevated temperatures and humidity may extend the dry time. After 10 minutes of drying, you can increase the airflow in the room by using a floor fan. Position the fan toward the ceiling to circulate the air.
- Because the floor has been completely stripped, multiple coats of finish will be applied. Consult label instructions for the proper number of coats.
- To prevent build up of finish along the edges, keep the first and last coats of finish approximately one tile's width away from the wall.
- Remember to clean your equipment and supplies after each use. Clean equipment works better, lasts longer, and will make your next floor job easier. Also report any problems encountered to the Supervisor of Custodial Operations.

Carpet Care: The procedures for carpet care in a Green Cleaning Program are similar in most instances with those of traditional program. Beyond the traditional issues, carpet care in a Green Cleaning Program addresses the selection of the appropriate products and equipment, along with some minor modifications of the procedures themselves. In a Green Cleaning Program, the primary effort should be a pollution prevention strategy, or one that minimizes the need to extract a carpet.

- Minimize the amount of cleaning chemicals. Excess chemicals result in rapid resoling.
- Use appropriate functioning equipment that will maximize the amount of water being extracted from the carpet to minimize moisture and potential for mild, mildew and bacterial growth.
- Increase ventilation, open windows if weather allows, and use fans to dry quickly. Carpets should be completely dry within 24 hours.
- Dispose of cleaning solutions properly.
- Clean equipment, restore supplies, and report any problems to the Supervisor of Custodial Operations.

When carpets need to be spot cleaned, solutions should be applied from a sprayer in a stream or coarse spray, as compared to a fine mist. This will minimize the amount of material that is atomized and that one potentially inhales, as well as minimize over-spray. When carpets need to be extracted, it is important that building occupants be notified. It is preferable to use the least toxic products possible. Use the least amount of water and ventilate the area with drying fans if necessary for rapid drying to minimize both the possibility of mold growth and slip-fall incidents.

It is preferable to conduct major cleaning activities on a weekend or during some other extended time periods when occupants will not be in the facility, such as during Spring, Summer, and Winter Breaks. This allows maximum time for the building to be ventilated (flushed with fresh air) prior to the return of the building occupants.

Carpet Care – Routine Maintenance -

- Gather appropriate supplies and safety items.
- Remove obstacles and debris.
- Vacuum entry matting and appropriate areas.
- Note any spots for removal.
- Replace any items moved.
- Clean equipment, restore supplies, and report any problems after vacuuming and spotting are complete to the Supervisor of Custodial Operations.

Carpet Care – Spotting -

- Gather appropriate supplies and safety items.
- Remove solid soils and blot up excess liquid.
- Apply your carpet cleaner and follow the manufacturer's recommendations. Agitate towards the center and let solution dwell.
- Rinse area with clean water and blot dry.
- Vacuum area spotted.
- Clean equipment and return supplies.

Carpet Care – Interim Maintenance -

- Gather appropriate supplies and safety items.
- Perform the Routine Maintenance steps first.
- Pre-spray heavily soiled areas with carpet cleaner.
- The preferred method is to extract with water only using a carpet extractor.
- Additionally, you can use a wet bonnet pad and clean the appropriate area.
- Use carpet dryers if required and allow area to dry completely.
- Clean equipment, return supplies and note any problems to the Supervisor of Custodial Operations.

Carpet Care – Restorative Maintenance -

- Gather appropriate supplies and safety items.
- Remove any obstacles or large debris.
- Perform the Routine Maintenance steps first.
- Pre-spray heavily soiled areas with carpet cleaner.
- Extract the appropriate area with carpet extractor using the deep extraction mode if available.
- Use carpet dryers and allow area to dry completely.
- Clean equipment, return supplies and note any problems to the Supervisor of Custodial Operations.

Carpets can act as a “sink” that allows particles and other unwanted material to filter down into the backing of the carpets. Once deep down in the carpet, they can lead to damage of the fibers and the need to ultimately replace the carpets. From a health perspective, the biggest enemy of a healthy indoor environment is when moisture provides an opportunity for these unwanted contaminants to become biologically active. Thus, extraction cleaning can get deep down into the carpets and remove the unwanted contaminants.

Unfortunately, extraction cleaning can also add large amounts of water to the carpet, especially if the equipment used is not functioning properly. Using too much concentrated cleaner not only wastes product, but also can lead to more rapid re-soiling of the carpet. Do not apply too much solution.

Make sure that the vacuum pick-up is working properly and that there are no holes or leaks in the wand or other attachments that decrease suction. When vacuuming up solution, repeat the process multiple times in both directions.

Use increased ventilation to help dry carpets. This can be accomplished by opening windows when weather permits, increasing building ventilation systems, and using floor-level drying fans. Carpets should dry within 24 hours to minimize the potential for bacteria and other potentially harmful organisms to grow.

Building occupants should be notified before large-scale extraction procedures are used, as this activity can affect more sensitive individuals. Proper scheduling is recommended when the building is not to be occupied, such as before weekends and on holidays. Buildings should also be ventilated or flushed with fresh air prior to being reopened.

Restrooms: While procedures for cleaning restrooms in a Green Cleaning Program are similar to those in a traditional cleaning program, because of their heavy use and moisture, restrooms must be cleaned frequently using appropriate cleaning products.

- Make sure disinfecting solutions are prepared and used properly (i.e. dwell time) and re-mix as required.
- Frequently clean surfaces that hands touch to eliminate the spread of germs (i.e. door handles, light switches, sink handles, stall handles, urinal and toilet handles, etc.).
- Frequently eliminate moisture.
- Keep floors dry to eliminate slip and falls and the build-up of bacteria, mold, and mildew.

Make sure that cleaning is done thoroughly, including hard to reach areas, such as behind toilets and around urinals. Periodically machine scrub restroom floors with a disinfectant. Make sure that label directions for appropriate dilutions or necessary dwell times are followed to allow for germ-killing activities to be thorough. Dwell time for many disinfectants is 10 minutes.

Many products used in the restroom can be quite hazardous, such as drain cleaners and toilet bowl cleaners. Make sure that appropriate personal protective equipment is used. Never mix products.

Restroom Cleaning – Clean from high to low, towards the doorway, and do dry work before wet work.

- Check supply cart for proper equipment and supplies.
- Prepare the area. Place a 'Restroom Closed' sign at the door, if applicable.
- Clean the exterior of all dispensers and re-stock supplies, including paper towel dispensers, feminine hygiene dispensers, toilet tissue dispensers, and hand soap dispensers.
- Remove trash from all waste receptacles. Clean receptacles with a disinfectant cleaner. Replace liners.
- Dust mop or sweep the floor, and pick up collected debris with a dustpan.
- Clean all sinks using disinfectant cleaners and an abrasive sponge. Leave disinfectant on surfaces according to manufacturer's directions.
- Clean all mirrors with a glass cleaner and a soft, clean cloth.
- Clean and disinfect all toilets and urinals. Remove urinal screens from the urinals, and using the bowl swab, push water level down in toilet bowls. Apply bowl cleaners to the exposed interior surfaces of the bowls and urinals, specifically under the rim. Allow time for the

chemical to work while cleaning partitions and showers (approximately 10 minutes – follow manufacturer’s directions).

- Remove graffiti from walls and stall partitions. Clean stall partitions and walls as needed with disinfectant cleaner.
- Clean both sides of entrance/exit doors with disinfectant cleaner, paying special attention to clean the hand contact areas.
- Scrub the inside of the bowls and urinals with a bowl swab. Use an abrasive sponge for difficult soils. Clean the exterior of the bowls and urinals with disinfectant cleaner. Clean both sides of the toilet seat. Clean the walls around the bowls and urinals with disinfectant cleaners. Flush bowls and urinals. Polish all chrome surfaces with a dry cloth (after cleaning with disinfectant cleaner).
- Scrub the floor with a disinfectant cleaner using a wet mop, bucket, and wringer. If needed, scrub floor grout with a tie and grout brush. Rinse with clear water. Squeegee or vacuum up water if necessary.
- Treat sink, shower or floor drains with drain maintainer if necessary.
- Inspect your work. If you are satisfied with you work, allow the floor to dry and re-open the restroom. Return cart to supply area and restock.

Food Areas: Particular attention should be paid to food waste, trash receptacles containing food debris, recyclables such as soda cans, and other objects that contain food residues, which can attract pests. Making every effort to eliminate those things that attract pests is critical to protection building occupant health by reducing or eliminating the need for pesticide use inside the building. Students, staff and faculty should be encouraged to rinse out food and drink containers before placing in the recyclable collection. A proper Integrated Pest Management (IPM) service should be considered.

Cafeteria, Dining Areas, Conference Rooms, Special Events Areas, and Break Rooms -

- Clean and sanitize floors, tables, chairs, counter surfaces, etc.
- Separate recyclables from trash and make sure recyclable areas are kept clean (i.e. rinse soda cans) so as to not attract pests.
- Make sure that building occupants understand how to properly separate trash and recyclables and properly disposal of each.
- Make sure that waste containers are covered and emptied at least daily.

Safety Issues: In a Green Cleaning Program, it is recommended that a product specifically meeting OSHA’s requirements be used along with all of the specified procedures (Universal Precautions), and this be clearly separate from the products and procedures used for general disinfection/sanitizing. This separation will meet the OSHA requirements, clearly differentiate the procedures for the different types of disinfecting/sanitizing, reduce the potential for confusion, and reduce overall health and environmental impacts.

OSHA Blood-Borne Pathogen Standard -

- Use safety cones or other means to make sure that building occupants do not come in contact with spills.
- Use proper personal protective equipments (i.e. gloves, goggles).
- Disinfect the areas with appropriate solution.
- Dispose properly in an appropriate bag.

OSHA required training does not deviate in a Green Cleaning Program because the Blood-Borne Pathogen Standard requires, among other things, the use of an intermediate grade disinfectant that is tuberculocidal (kills TB), proven effective against the Hepatitis B Virus (HBV) and HIV 1 (AIDS), or a specified dilution of chlorine bleach (sodium hypochlorite).

Measuring/Diluting Concentrated Cleaning Products -

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

Highly concentrated cleaning products reduce environmental impacts from packaging and transportation, and typically reduce actual use cost compared to less concentrated alternatives. However, to gain the environmental benefits and to protect employees exposed to these more highly concentrated products during mixing, extra care should be used.

Products should always be diluted accurately according to manufacturer's directions. This can be achieved through a variety of methods including measuring cups, simple dispensing pumps, and more complicated automated dilution equipment. Dilution equipment systems should be periodically checked for accuracy.

Custodial staff should understand that adding extra concentrated cleaning product does not make the cleaning work better or faster. Over use of concentrated cleaning products not only wastes products and the associated product expense, but also can result in longer times to do the job (i.e. removing residues), slippery floors and surfaces, and other complications. Finally, never mix cleaning products together.

Indoors Plants: Indoor plants are a wonderful addition to any facility. While the Custodians are typically not responsible for watering and caring for office plants, they frequently are called upon to address spills from watering, mold growth in carpets from dampness, aphids and other pests, and other problems. Furthermore, occupant's use of pesticides and fertilizers should be managed with care because these products can impact health. Thus, occupants should be educated on the proper appropriate care for plants. If plants are on carpets, there should be blocks underneath to keep moisture from building up in carpeting.

- Educate occupants on appropriate care and guidelines for indoor plants.
- Ensure that plants are not in direct contact with carpets and unit ventilators.

Recycling: Recycling is a very important pollution prevention activity to reduce burdens on the environment as a result of both solid waste disposal and the extraction of the natural raw materials. The recycling effort is guided by regulations and mandated including EPA's Comprehensive Procurement Guidelines. The following are materials for recycling:

- Clear, green and brown glass bottles and jars
- White office paper (e.g., copier, bond, computer)
- Mixed office paper (e.g., ledger paper, folders, pamphlets, brochures, envelopes)
- Newspapers
- Aluminum and metal cans

- Cardboard
- Plastic bottles and plastic products
- Telephone and other books
- Scrap metal including steel containers

The following are considered 'Universal Waste' and are likewise recyclable but collected by special agencies:

- Fluorescent lamps
- Mercury-containing lighting ballasts
- Toner and ink-jet printer cartridges
- Batteries
- Compact discs
- Microfilm and recording tape
- Carpet
- Ceiling tiles
- Computer monitors
- Televisions and electronic equipment

One of the primary keys to making the recycling effort work, especially in a way that is efficient for both cleaning personnel and occupants, is to develop some clear facility goals and procedures. To accomplish this, it is important to work with the "Green Team" and facility management to support training and other efforts to engage the occupants in this effort.

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

Tracking recycling. It is important to enlist the occupants to sort their recyclable materials and make it clear what recyclables are to be collected and where they are to be placed. Recyclable materials that contain food, such as soda or soup cans, should be rinsed out by the occupants prior to being placed in collection bins to minimize the potential for attracting pests (i.e. ants and cockroaches). Custodians should not be required to separate recyclables from trash. It is important that the campus staff, faculty and students and campus administration work together to support the recycling efforts and especially to address the issue of non-compliance by individual occupants or those that frequently contaminate the mix.

Communication: To insure the success of Skyline College's Green Cleaning Program, it must be communicated with its staff and clients. As described above, the reason and benefits of the program are discussed with our employees during their initial training sessions. It is a good best practice to post program information at campus locations and insert articles in campus newsletters to continually demonstrate the commitment for the program.

Externally, the program needs to be integrated with campus marketing information for prospective students. Another method of communication is with local newspapers and radio/TV stations; they are always looking for "feel good" stories. It will be a best practice to communicate the status of the program with students, staff and faculty to reinforce how the Green Cleaning Program is benefiting them. Another communication idea is to create a "Green Team" for each building location to obtain

their commitment to the process. Typical team members would be a Division Dean, the Custodian assigned to that building and additional Facilities maintenance personnel, like the Supervisor of Custodial Operations and Lead Custodian, campus Safety Manager, etc.

Another component of the communication plan is the identification of employees or building occupants with special needs, physical and sensitivities, like dust, chemicals, noise, etc. When identified they should be notified of any products or procedures that may cause discomfort.

The Skyline College Green Program communication program will consist of comment cards for employee or occupant feedback. This will be a very valuable asset for the Lead Custodian and the Supervisor of Custodial Operations to discover situations before they become major problems. The continual feedback and resulting responses will continue to build a successful program internally and with students, staff and faculty.

In summary, the San Mateo County Community College District's commitment to provide healthy, clean, and well-maintained buildings that follow green cleaning practices and procedures epitomizes "**Facilities Excellence**" in how we go about what we do.

José Nuñez
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