

LEED

GREEN CLEANING Plan

PREPARED BY

University of California, Merced

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# Introduction

Cleaning and maintenance products contribute to indoor air quality problems, slip/fall hazards, and potential health hazards. This policy has been established to ensure appropriate actions are taking place to reduce the environmental impact of maintaining the property while still providing a safe and healthy working environment for its occupants. The intent is to reduce exposure of occupants and maintenance personnel to potentially hazardous chemical, biological, particle contaminants and anything else that would adversely impact air quality, occupant health, building finishes, building systems, and the environment. University of California, Merced has formally adopted this policy to implement green housekeeping practices in the maintenance of its building. This policy applies to all employees and contractors working for the University of California, Merced.

## **GOALS OF THE POLICY**

- Maintain a clean and attractive building
- Reduce or eliminate the use of toxic cleaning products
- Protect the health of building occupants and Janitorial Staff

## **FACTORS CONSIDERED IN THE DEVELOPMENT OF A GREEN CLEANING AND MAINTENANCE POLICY**

- Sustainable cleaning systems
- Sustainable cleaning products and maintenance
- Use of chemical concentrates and appropriate dilution systems
- Cleaning equipment that reduces the impacts on indoor air quality
- Training of maintenance personnel in the hazards, use, and disposal of cleaning chemicals, dispensing equipment and packaging

## **ROLES AND RESPONSIBILITIES**

### *Building Management*

- Assess the areas to be maintained, usage patterns as well as to determine how to meet the overall goals of the cleaning program
- Develop a comprehensive approach to the maintenance of the building/property and determine the product specifications to be used
- Ensure that in-house Janitorial staff is educated on the policies
- Develop a schedule to meet with Janitorial Staff
- Ensure that safety, health and environmental practices are compliant with applicable local regulatory requirements
- Ensure the proper disposal for all cleaning waste

### *Janitorial Staff*

- Attend a training program or workshop on policies
- Report to Building Management per established schedule

## **SUSTAINABLE CLEANING STRATEGIES**

Implement the following cleaning strategies

- Efficient use of supplies
- Maintaining the hygienic and aesthetic goals of the property
- Protect the building's occupants, systems and finishes from contaminants that adversely affect them
- Janitorial specifications that address the frequency of cleaning in all areas
- The highest degree of reutilization and recycling to be carried out by all Janitorial staff working on the property
- Waste minimized by ordering materials without additional packaging and all packaging must be recycled

## IMPORTANCE OF THE CUSTODIAN'S JOB

The process of teaching students in schools involves not only the teacher, but support staff whose services contribute directly or indirectly to their educational growth. In the course of the day-to-day work, it may seem that it is an endless job of cleaning rooms that will be dirty again tomorrow. As true as this may be, it should be remembered that how well you do your job can affect not only the health and safety of the students, but the morale and atmosphere of the entire University. Custodians are responsible primarily for cleaning the University buildings; Classrooms, Laboratories, Offices Library and other facilities that are under their care. Operations and preventative maintenance includes security to prevent vandalism and theft. The community, teachers, and students take pride in a well kept attractive University and will help you keep it that way.

## PUBLIC RELATIONS

The University needs the assistance of professional custodians. The University realizes the importance of the custodian's position and appreciates the fact that a clean, well-kept, properly heated and ventilated building favorably affects the University staff in their work routine and the students in their learning. You can gain good will for the University through efficiency and a friendly attitude toward students, teachers, staff and visitors. The public expects all University employees to be dependable, courteous and cheerful.

Custodians are a part of the University's team. As a team member, they are expected to support all staff in a manner which will reinforce their efforts in the performance of their duties. When it is necessary for custodians to go into a classroom during class time, they enter very quietly and do whatever is necessary with as little commotion as possible.

## Training

We Deliver Training with Greater Impact and Effectiveness. We have made a major commitment to training. Specifically, we will bring quality people to the task, hiring carefully and purposefully into our organization; then we will give them the training that will result in quality work. Customer service training; team work training; product handling; restroom cleaning; detail cleaning; MSDS, carpet care; safety; blood borne pathogens; glass cleaning & floor care.

### Floor Safety

Never leave a slick spot or any foreign material on the floor that may be hazardous to the occupants of the building. Always put out safety precaution signs where a floor may be wet from mopping or leaking water.

## Dusting

From the standpoint of health as well as appearance, dusting is one of the most important jobs of the custodian. Dust can be a carrier of disease germs. Visible dust presents a dirty appearance that needs to be taken care of as soon as possible.

- A vacuum cleaner is the best tool for removing dust.
- Treated “dust cloths” can be used for most dusting. We used yellow treated towels that are disposable; stretching them improves their dusting properties.
- Some surfaces lend themselves well to ‘damp dusting’ using a clean Microfiber “Green” cloth and spray bottle with appropriate solution. Where students eat at their desks, the desk tops are to be cleaned daily with a University-approved disinfectant.
- Dust all horizontal surfaces such as window ledges, sills, files, counter tops, and desks. Inspect student desk tops and spot clean them to remove heavy soil, heavy marking or graffiti.
- Other dusting tools are available in our department for specialized cleaning; we have Microfiber dusting tools with extension poles for high dusting and feather dusters that can facilitate the cleaning of specific surfaces.
- As a general rule all horizontal surfaces less than 5’ will receive a thorough dusting weekly. Horizontal surfaces greater than 5’ will receive a thorough dusting monthly. Some surfaces may require spot dusting on a daily basis.

Note: Lock all windows when you clean the sills.

## Maintenance Procedures

1. Assemble equipment and supplies.
2. Wear protective equipment per label directions.
3. Be sure to use appropriately sized attachments if using a vacuum.
4. Dust from top to bottom.
5. Be thorough and get hard-to-reach areas.
6. Never move personal items.



## Dust Mopping

- Consists of twisted cotton yarn strands secured to a band for attaching to the dust mop handle.
- We also have Microfiber dust mops available to use with 3M disposable dust cloth. They are available in a variety of sizes and shapes. Most commonly used sizes are 24", 36", and 48" plus 'wedge' mops.

## Maintenance Procedures

1. Assemble equipment and supplies.
2. Put on appropriate personal protective equipment, as stated on the product label and MSDS.
3. Using a putty knife, carefully remove any gum or other debris stuck on the floor.
4. Start from a far corner and work toward the door.
5. When using a micro-fiber flat mop, use a continuous motion, without lifting the mop from the floor.
6. Typically begin next to the wall. When turning, pivot so that the leading edge remains the same. Overlap the previously mopped path by 2 to 4 inches to ensure complete coverage.
7. When completely finished, pick up the collected debris using a counter brush and dust pan or vacuum.
8. When the micro-fiber no longer attracts soil, it will need to be laundered.



## Vacuuming

In the matter of dirt removal from the premises, there is no substitute which even approaches the vacuum cleaner for thoroughness. The suction of the vacuum cleaner pulls all loose particles into its flow, including those in corners and around furniture, preventing the gradual accumulation of dirt in difficult places. On carpeting it draws the embedded dust out of the pile. Grit left in the carpeting, cuts the pile and hastens the deterioration of the carpeting. In our campus we have several types of vacuums that facilitate the cleaning of varied areas.

NOTE: Check Equipment handbook for more specific information about any piece of equipment owned by our department.

- Our Up-right vacuum (Tornado CV-38) has a HEPA filter that protects the building residents, but most important the worker using it; this vacuum contains 99.97% of particles as small as 3 microns.
- Back-pack Vacuums (Tornado Pro-pack and Minuteman BPV) are handy when having to work around chairs, rows of seats and uneven surfaces. They can be used also for high dusting and/or stair cleaning. A Hip-vacuum (Euro-clean) is also available as a lighter variant of the back-pack vacuum.
- The industrial vacuum cleaner (Also called Wet/Dry vacuum) performs another function which is almost as necessary and quite as effective as picking up dry accumulations. Most industrial vacuum cleaners are or can be adapted for picking up water and are, therefore, highly efficient for removing scrub water from resilient floors.
- Vacuum cleaners must be emptied each shift (or otherwise as necessary).
- Filters are to be cleaned regularly to insure maximum air-flow and to extend the life of the motor.
- Clean machine exterior also, and store properly.
- Vacuum cleaners may only be used by Custodial employees

## Maintenance Procedures

1. Assemble equipment.
2. Move furniture in room only as necessary to vacuum all areas of the carpeting.
3. Pick up large pieces of paper and other debris before vacuuming.
4. Vacuum all carpeted areas, getting under desks, furniture and equipment that is off the floor.
5. Vacuum chalk trays (if not already done) and erasers (as needed).
6. Replace all furniture.
7. Look for and clean up spots or soiled areas on carpeting using spray bottle, appropriate cleaner and clean cloths or paper towels. Remove gum by using gum remover-follow manufacturer's instructions.



### Entrances, Lobbies and Corridors

These areas are generally the first areas seen by students, staff and visitors. Their condition and cleanliness leaves a lasting impression on all that enter the building. It is of the utmost importance that these areas are maintained to a standard of excellence. Considerable dirt is carried in and deposited in entryways and corridors. The custodian's schedule should include adequate time to sweep these areas of travel more often than once a day. Regular sweeping from the sidewalks outside of entryway doors will prevent some dirt and sand from entering the building. Most entryways have floor mats to serve as a dirt and sand trap. Walk off entry mats, reduce liability and costs associated with people slipping and falling as a result of wet, dirty floors, particularly during inclement weather or from excessive amounts of dirt and grit build-up. These must be cleaned periodically, or daily during the 'mud' season.

#### Entryway Maintenance Procedures (Daily)

1. Clean walls, doors, door handles, push plates and kick plates.
2. Vacuum matting. Mats should be vacuumed at least once a day; vacuum in both directions. Be sure to clean under mats as well. Replace dirty mats with clean ones weekly under normal conditions, more often in wet weather or extremely dirty conditions. On a periodic basis, scrub dirty mats with detergent or carpet solution, rinse thoroughly and let them dry.
3. Dusty mop or vacuum, entryway flooring.
4. Repeat more frequently if heavy soil is present.

#### Entryway Maintenance Procedures (Periodic)

1. Roll up and move matting.
2. Place wet floors signs and caution tape.
3. Damp mop entryway. Use 3M Neutral Cleaner or 3M 3-in-1 Cleaner.
4. Remove wet floors signs and caution tape when the area is dry.

Note: Periodic procedures should be repeated as needed based on weather conditions and soil loads.



## Floor Stripping

- Notify occupants beforehand if a strip out is scheduled.
- Select (L.O.E.) Stripper.
- Ventilate area and building during and after stripping.
- It is preferable to conduct these activities on a time period when occupants will not be in the building. This allows maximum time for the building to be ventilated (flushed with fresh air) prior to the return of occupants.

## Maintenance Procedures

1. Prep the area by placing wet floor signs, caution tape and other blockades around area to be stripped.
2. Assemble equipment and supplies. Assemble two mop heads and handles. If not color coded, label "Strip Mop" and other "Rinse Mop." Assemble two mop buckets and wringers. Label one bucket "Strip" and the "Rinse."
3. Place the appropriate pad on the rotary floor machine. Fill the strip bucket with hot water unless the product label recommends cold, and mix with stripper. Fill the rinse bucket with clean, cold water.
4. Place all equipment in the area where the work will begin.
5. Remove free-standing objects. Vacuum and remove walk-off mats.
6. Dust mop or vacuum the area. Remove all gum and other sticky residue from floor with putty knife.
7. Apply foaming stripper to baseboards, if necessary. Prepare to control liquid flow.
8. Apply stripper to floor. Dip "Strip" mop into "Strip" bucket. Lift mop, allowing excess to drip into bucket. Apply to floor. Apply sufficient solution, but be sure not to over-wet, which may lead to solution traveling under doors or onto carpet. Outline a 10x10 foot area and fill in using an overlapping pattern. Let solution dwell 5 to 10 minutes. Do not allow solution to dry. Re-apply as necessary to keep floor wet.
9. Use edging tool to loosen finish close to baseboards and corners.
10. Scrub the floor with a rotary floor machine after the stripping solution has had time to work. Scrub across the work area retreat as necessary.
11. Check your progress. If any floor finish remains, apply more stripper and increase dwell time. Don't let floor dry.
12. Rinse the floor using the "Rinse" mop and bucket. Use a floor squeegee to manage the slurry.
13. Pick up slurry with wet-vac or mop and bucket.
14. Rinse the floor again with clean cold water.
15. When the floor dries, rub your hand over it. If there is residue on your hand, you must rinse again.
16. Once the floor is dry and free of residue and glossy areas (sign of finish or sealer) it is ready to be recoated.



### Floor Finish Sealer Application

- Apply finishes or sealers with a blue/white microfiber finish pad or with a clean rayon mop head
- Use clean buckets with clean wheels.
- Line bucket with fitted trash liner.
- Use appropriate finish or sealer.
- Apply even coats
- Don't force dry finish with a fan.



### Finish/Sealer Procedures

1. Assemble equipment and supplies.
2. Put on appropriate Personal Protective Equipment, as stated on the product label and MSDS.
3. Post Wet Floor signs and blockades.
4. Prepare blue/white microfiber finish pad or mop head and bucket.
5. Pour enough sealer or finish into the bucket for the area.
6. Dip the blue/ microfiber finish pad or mop head into the finish or sealer. Tamp the mop head in the wringer. Do not wring out. Hold above wringer and count 1-2-3. If no more drips the mop is ready.
7. Apply the finish or sealer. Draw a 10x10 foot frame with finish or sealer. Using and overlapping technique, fill in the frame. Apply all the way to the baseboard on the first and last coat.
8. Allow each coat to dry.
9. Apply additional finish or sealer until desired appearance is achieved. Do not apply more than 4 coats in 24 hours. Do not buff between coats. Do not buff until at least 24 hours after application of the last coat.
10. Remove and discard the liner and leftover finish. Thoroughly clean the microfiber finish pad/mop head, bucket and wringer.
11. Remove Wet Floor signs and other blockades after floor is completely dry.

### Buffing and Burnishing

- Make sure that adequate floor finish exists.
- Select the appropriate restoration products. Water-based, low VOC products are preferred.
- Apply product in a stream or coarse spray instead of a wide-angle mist to minimize the amount that becomes airborne and inhaled or over-sprayed. Do not over-apply.
- Be sure that the pad matches the rotary scrubbing machine speed and the finish type.

## Buffing Procedures

1. Assemble equipment and supplies
2. Put on appropriate Personal Protective Equipment, as stated on the product label and MSDS.
3. Post Wet Floor signs or blockades.
4. Dust mop and damp mop the floor. The use of a micro-fiber flat mop is preferred.
5. Mount a red buffing pad on the rotary machine.
6. Apply spray buff solution in a stream or coarse spray being very careful not to use too much or over-spray.
7. If using a 175 RPM machine, make three passes using a swinging motion over the work area, using appropriate pad.
8. If using a 1000-1500 RPM machine make a single pass in a straight line over the area.
9. Change pads as necessary.
10. Dust mop the floor after the entire area has been buffed.
11. Remove Wet Floor signs and/or other blockades.
12. Clean equipment and return it to its proper place.



## Spray Buffing Tips

- A “shot” of spray buff solution enhances gloss; helps remove black marks and scratches. Be sure to buff before the spray buff solution has time to dry.
- Try to spray buff the surface on a regular basis, 1-3 times per week.
- Use restraint when applying solution. One “shot” is usually enough.
- Carry the spray bottle in a convenient place. Holsters or attachments that mount onto your rotary scrubber are available.
- Take good care of your pads. Check and flip when they get soiled.
- Wash, rinse and hang to dry at the end of the shift.

## Burnishing Procedures

1. Assemble equipment and supplies.
2. Put on appropriate Personal Protective Equipment, as stated on the product label and MSDS.
3. Post Wet Floor signs or other blockades.
4. Dust mop and damp mop/ scrub the floor.
5. Mount the appropriate pad on the burnisher.
6. Make one pass over the work area. If the floor isn't glossy after one pass. Then make a second pass.

7. Change pads as necessary.
8. Dust mop the entire area after the floor has been burnished.
9. Clean equipment and return it to its proper location.
10. Remove Wet Floor signs or other blockades.

### Carpet Pre Spray & Extractors

Carpets can act as a “sink” that allows particles, allergens and other unwanted material to filter down into the backing of the carpets. Once down deep in the carpet these unwanted materials can lead to damage of the fibers and need to ultimately replace the carpets sooner than properly maintained carpeting. But from a health perspective, one of the biggest enemies of a healthy indoor environment is when moisture provides an opportunity for biological growth in the carpets.

Thus, pre-spraying carpet and rinsing with an extractor should get deep down into the carpets and remove the unwanted contaminants.

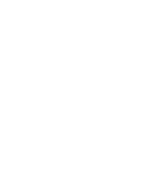
Carpet Extractors provide the most efficient method of cleaning carpets. Most are designed to inject a solution of plain water and detergents (under pressure) into the carpet. This solution is then agitated by a powered brush and the soiled solution is then extracted by means of a powerful vacuum, removing soils and most of the moisture. The use of fans after a carpet will help speed the drying process and help prevent the growth of mildew. We have available a ride-on Carpet cleaner.

Individuals can be easily trained to operate these machines; removes more soil than any other practical system; leaves carpets damp/dry if equipment is used properly.

### Pre-Spray & Extraction Procedures

1. Remove large debris from carpet.
2. Vacuum and roll up walk-off mats.
3. Thoroughly vacuum the area to be extracted.
  - Inspect for heavy soils and spots.
4. Assemble equipment and supplies.
5. Put on appropriate Personal Protective Equipment as stated on the product label and MSDS.
6. Treat spots
7. Prepare pre-spray solution
  - Follow label directions
  - Use hot water
8. Prepare your extraction rinse solution.
9. Post Wet Floor signs or other blockades.
10. Pre-spray the carpet
  - Place foil under legs of heavy furniture
  - Lift carefully. Get help with heavy items.
  - Work a manageable section.
  - Allow the detergent to work 10-15 minutes.
11. Extract in overlapping paths.
  - Extract in overlapping paths.
  - Make a second “dry” pass with the solution off.

- Collect as much moisture as possible.
12. Empty the recovery tank when full. Refill the solution tank.
  13. Dry the carpet with a carpet fan.
    - Place the fan out of traffic areas.
    - Turn up HVAC or open doors and windows.
  14. Raise the carpet nap.
    - Finish the job grooming the carpet with a carpet rake.
  15. Clean your equipment and return it to its proper location.
  16. Remove wet floor signs or other blockades after the carpet is dry.
  17. Replace walk-off mats.
    - Check backs of mats to make sure they are clean and dry.
    - Never cover wet carpeting with a mat.



### Restroom Cleaning

The job of cleaning and disinfecting your rest rooms is not a difficult one, if the work is done efficiently and daily as it should be. Modern fixture design usually makes cleaning them fast and effective if proper procedures are followed. Remember that deodorant blocks are not permitted. Deodorants do not clean or sanitize, but merely cover up one odor with another. Clean rest rooms are important for a number of reasons:

- Bacteria control to help eliminate cross infections to safeguard health.
- Many times the custodial staff is judged on the appearance and cleanliness of the rest rooms.
- Clean rest rooms encourage the public to help keep them that way.
- Clean rest room fixtures greatly reduce the possibility of offensive odors (and complaints).

The most frequent lingering cause of odors in restrooms is due to uric acid salts. Remove these salts through proper cleaning procedures and the odors are gone! Rest rooms also require adequate ventilation.

### Restroom Procedures

1. Put on Personal Protective Equipment.
2. Assemble equipment
3. Mix/dispense cleaning solutions.
4. Knock, announce yourself, and prop open door.
5. Sweep floor.
  - Pick up solid wastes.
  - Use a floor scraper or putty knife to remove any items stuck to the floor.
  - Start the farthest corner and work toward the door.
  - Place a Wet Floor sign.
6. Refilling Dispensers
  - Check all dispensers daily to insure adequate supply.
  - Refill all dispensers as required (including toilet paper dispensers).
  - Interfold the bottom sheet with the remaining top sheet in the dispenser when adding multifold paper towels.
  - Check the working condition of the units.
  - Close and lock dispenser.
  - Spray the surfaces with germicidal/disinfectant solution and wipe dry with paper towel. At the same time check the soap valve to assure proper operating condition.
  - Clean the surface of the dispenser as above.
  - Fill all soap dispensers.
  - Stock the sanitary napkin/tampon dispenser in the women's restrooms. It is essential that the sanitary napkin/tampon machine be stocked at all times. If the machine becomes inoperable, it must be repaired or reported promptly.
  - Refill machine correctly to ensure that it will dispense napkins properly.
  - Close and lock the machine.
7. Cleaning Sinks and Wash Basins
  - Several methods can be used to clean sinks with equal final results, however, the following is recommended:
  - Use spray bottle with Restroom cleaner (3M 4L) solution and spray sink (inside and outside), faucets and adjacent wall areas.
  - Let sit a few minutes, and then scrub with sponge, Microfiber cloth (Yellow), or brush.
  - Use a small amount of fine cleanser if necessary.
  - Rinse as necessary and polish with clean cloth or paper towel.
  - Wipe walls adjacent to sinks to remove grime, spots, etc. as above.
  - Clean pipes underneath sinks daily as part of the procedure.

- Do not use lime de-scalers on counter tops.



## 8. Mirrors

- Mirrors in rest rooms are easy to keep clean by spraying lightly with glass cleaner (3m 1L) and wiping dry and/or polishing with Microfiber cloth (Blue) or paper towel. Never use an abrasive cleaner or acid or dirty cloth on mirrors. These may mar or scratch surface. Avoid using excessive water as it may get into the frame backing and damage the silvering.

## 9. Urinals and Toilet Bowls

- UC Merced has waterless urinals installed across campus. These urinals require special cleaning techniques unique to the type of cartridge installed in the unit.
- Flush toilet and/or urinal.
- Force water down the trap below the water line.
- Spray Restroom Cleaner (3M 4L) or toilet bowl cleanser following manufacturer's instructions. Give the bowl cleaner time to work.
- Use cotton swab (poodle tail) and/or toilet brush and swab inside of bowl using solution (We do not use the cotton mop but it is included just for reference)
- Scrub as necessary-be sure to swab solution up and under the flush rim.
- Scrub thoroughly.
- Flush toilet and rinse brush in clean water before proceeding to next fixture.

## 10. To clean seat and outside of fixtures using sprayer:

- Spray germicidal/disinfectant solution on toilet seat (both sides), and all of the outside surfaces of the fixtures (toilets and urinals).
- Let stand a minute or so.
- Wipe dry with paper towels starting with the top of the seat, then underside and finally the balance of the fixture down to the floor.

Note: This procedure is the most effective way to sanitize a fixture, because you are always using cleaning solution with no chance of cross-contamination.

Note: Be sure to spray plunger with disinfectant after use. Keep in a bucket when not in use.

## 11. Bathroom Walls and Partitions

- Spray or damp dust with a germicidal/detergent solution on surfaces such as ledges, partitions, dispensers, shelves, areas around urinals and toilets, and lower walls as necessary.
- Use either sprayers or bucket with germicidal/detergent solution, paper towels, clean cloths or a brush.
- Wipe dry, if necessary, with paper towels or clean cloth to prevent streaks and spotting.

Notes: To discourage graffiti, always remove it right away. Test chemical or cleaner in an obscure area prior to use. In older buildings it may be necessary to paint the stalls frequently to maintain desired levels of appearance.

#### 12. Bathroom and Shower Floors: (Does not include wood floors)

- The floors are made of a variety of materials. Some judgment is necessary as to the use of strong chemicals and excessive amounts of water. If the floor can be damaged by over-wetting, substitute with light damp mopping.
- Mix mopping solution per manufacturer's instructions.
- Use clean, wet mop and wet down the floor thoroughly with the solution (damp mop if floor would be damaged as above).
- Let stand a few moments for the chemicals to work.
- Agitate the solution with your mop as needed.
- Pick up soiled solution with mop, floor squeegee, and pick-up pan or floor drain, or use wet-vac for pick up. Clean all corners and edges. (Scrape if necessary.)
- Return all receptacles to proper position.

Note: Do not rinse floor as we want to take full advantage of the residual benefits of the germicide. Before leaving the rest room, take a quick visual check of the area and see if it smells clean and looks clean! Be proud of doing the job well.

#### Empty trash

- Remove the used liner by pulling straight up for safety don't press down on the trash. There may be sharp objects in the trash that may cause injury if you push down.
- Spray or wipe containers with germicide/disinfectant solution. Wipe dry with clean cloth or paper towel
- Reline containers with plastic liner.

Food Areas: Cafeterias, Break Rooms, Etc.

## Maintenance Procedures

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

Particular attention should be paid to food waste, trash receptacles containing food debris, recyclables such as soda cans, and other objects that contain food residue that can attract pests. Making every effort to eliminate those things that attract pests is critical to protecting occupant health by reducing or eliminating the need for pesticides inside the building. Ask occupants to rinse out food and drink containers before placing in recyclable collection. Refrigerators used by occupants for their personal use should be emptied and cleaned periodically by the occupants. Integrated pest management (IPM) should be followed.

## OSHA Blood-borne Pathogen Standard

### Procedures

1. Use safety cones or other means to make sure that occupants do not come in contact with biological spills.
2. Use proper personal protective equipment (i.e. gloves, goggles).
3. Disinfect area with appropriate solution following OSHA's Blood-borne Pathogen Standard.
4. Dispose properly in a biohazard bag.

OSHA required procedures and training on the Blood-Borne Pathogen Standard 9 is not changed in a Healthy High Performance Cleaning program as the requirements are mandated by federal law. The Blood-Borne Pathogen Standard requires, among other things, the use of bleach at a 1:10 dilution, an EPA-registered tuberculocidal product, or an EPA- registered product with claims against both HBV and HIV.

## CLEANING EQUIPMENT AND USES

The need for proper care of equipment cannot be overemphasized. A job can be no better than the person that does it or the equipment used. Equipment that has proper care will stay in use much longer. It will be safer for the operator to use and will enable the custodian to do a better job. After each use, make it a practice to clean equipment and store it properly. Inspect power equipment daily. If equipment needs repairs, contact your lead or Custodial Supervisor. Ensure that electrical cords and connectors are grounded and in good condition. Any cords that have had the grounding prong removed or broken or where the cord is frayed should be immediately taken out of service. Do not use equipment until it has been fully repaired.

### Tornado CV 38



The Tornado CV 38 vacuums come standard with soft rubber bumpers, lightweight handle, brush-assisted movement on board tools, a protected hose, ergonomic design, quiet operation, a simple to use height adjustment and specially engineered shock absorbing wheels. TRUE HEPA filtration is present in the high efficiency three stage filter system. The units come standard with this demanding level of filtration and were designed specifically to meet or exceed most worldwide indoor air quality standards. Tornado's innovative cleaning solutions improve worker safety and comfort, and create a healthier indoor environment. And what's more Tornado's vacuum CV38 is green-certified and qualify for LEEDS credits. CRI approved

### Tornado Pro Pac-Vac



Tornado's Pac-Vac backpack vacuums are the most powerful, easy-to-use and quiet backpack vacuums. Designed for superior operator comfort and increased productivity, these super-quiet units eliminate the need to bend over as required with traditional upright vacuums. Not only do workers expend less effort doing their jobs, getting in and out of tight or confined spaces becomes a breeze. As a result, cleaning productivity dramatically increases to over 7,000 square feet per hour. The backpack is equipped with True HEPA Filtration System for Improved Indoor Air Quality (IAQ), Superior 71 dB rating for whisper-quiet operation, lightweight at only 11 lbs and ergonomically designed back support and harness.

### Advance AquaRide AXP



The Advance AquaRide is equipped with a patented AXP onboard detergent dispensing system. The AXP system eliminates pre-mixing of detergent and water because the two are stored separately in the machine until the solution is sprayed on the scrub head. This prevents solution waste and increases cleaning productivity by eliminating the need to

dump or clean the solution tank when changing detergent or at the end of the day. A dilution ratio selector on the cartridge can be set to accurately dispense detergent at the manufacturer's recommended dilution ratio without waste. By keeping multiple AXP cartridges at the ready, facilities can easily switch between degreasers, neutralizers, or green-certified detergents without having to dump and refill the solution tank.

**CRI Bronze Level Seal of Approval**

### Pathfinder Carpet Extractor with Heat



Pathfinder Carpet Extractor with Heat is a powerful, heavy-duty extractor with portable, compact design. It comes with space-saving bladder, sturdy, rotomolded handle and large rear wheels make transporting a breeze. The extractor can go from carpet to upholstery cleaning with adjustable spray - variable flow up to 250 PSI. The extractor has easy to use controls, corrosion-proof polyethylene construction and is powered by 2.5 HP, 3 stage vacuum motor.

### Floor Machine /Burnisher



The floor machine is an indispensable machine for maintaining resilient floors. It can also be used for spot-cleaning carpets when combined with solution sprayer, solution tank and carpet bonnet. We have three types of floor machines, all from Minuteman. They are Front runner 20"; variable speed 175/300; smaller 13" 175 RPM for tight spaces; 20" high speed Burnisher

- 20” machines are most commonly used for polishing, scrubbing, and stripping resilient floors.
- 13” machines used primarily for spot-shampooing or traffic lane shampooing and be used in conjunction with extractors.
- 20” 2400 Burnisher for high speed polishing. The Burnisher is equipped with (PAMS) Air Management System for dust control.

### Tennant Auto Scrubber



The tenant auto-scrubber can clean scrub and mop floors at once. It can also be used for water extraction on open areas. It is battery operated with the main scrubbing system on the front. Water jets supply the water with the cleaning solution at an even rate while a squeegee mounted on the back collects all the water and directs it to a vacuum. Floors are virtually dry in a couple of minutes. Rubber bumpers and non-marking tires protect facilities.

### Rubbermaid Microfiber Cloths



Rubbermaid Microfiber cloths are color-coded for general purpose and special applications. They are non-abrasive, highly absorbent and can be used with or without cleaning solution. Microfiber cloths feature double-finished edges for durability and shape retention.

### Rubbermaid Microfiber Wet Pads - Dusting Pads - Microfiber Finish Pads



Microfiber Cleans Faster, Better, and Safer than Traditional Cleaning Methods. Microfiber's unique construction collects and holds dust, dirt, and allergens better than traditional cleaning methods and has been shown to reduce bacteria levels by as much as 99%. Microfiber uses up to 95% less chemicals and water for substantial cost savings and greener cleaning. Microfiber mops can be laundered and reused hundreds of times, resulting in an estimated 60% lifetime cost savings. Microfiber floor care tools are up to 75% lighter than traditional tools, reducing worker strain and saving as much as 20% in labor costs per day. Microfiber pads and buckets from Rubbermaid Commercial Products effectively enable the reduction of cross-contamination. Microfiber Wet Pads feature color coding for quick identification by area or room. The Charging Bucket stores 10-20 clean pads, making it easy to use a single pad for each room or area.

### 3M™ Easy Trap Duster System



Using specially developed disposable sheets, the 3M™ Easy Trap Duster System traps and holds 6 times more dust, dirt, sand and hair than traditional mops and other disposable dusting systems — it's the more efficient way to dust. Works on most horizontal surfaces, low drag reduces worker fatigue and uses both sides of the duster without touching it

### Chemical and Cleaning Solutions:

All chemicals used by the UC Merced Custodial Services are “Green Seal Certified” or comply with California’s EPA regulations for safety and environment protection. These chemicals normally come in a highly concentrated form and are dispensed by a management system that eliminates the need for manual dilution. Some others require manual dilution with water; follow manufacturer dilution instructions and follow safety requirements when diluting these chemicals. Always read the instructions and the Material Safety Data Sheets (MSDS) for each product.

Ensure that Material Safety Data Sheets (MSDS) are accessible and that all maintenance and custodial personnel as well as administration are aware of their location. A MSDS Binder is kept in every building or service vehicle as stipulated by OSHA. Periodically review your MSDS sheets to ensure that they are current and reference chemicals that are currently in use. Ask your Lead or Supervisor if you have questions or concerns about its accuracy.

**Note: KNOW THE PROPER FIRST AID PROCEDURE FOR ALL CHEMICALS USED ON THE UNIVERSITY THAT HAVE THE ABILITY TO CAUSE HARM TO BUILDING OCCUPANTS AND WORKERS.**

The following safety rules are for your protection; however, they will not be of any help if you don't use them.

1. Know what you are using. Do not use chemicals from unmarked bottles or containers. We provide pre-printed spray bottles for our daily use chemicals.
2. Always read the label and follow the instructions.
3. Measure all chemicals. If the directions say to use four (4) ounces in one (1) gallon of water, measure the water and the chemical correctly. A weak solution may not provide the proper cleaning power. A solution that is too strong will not only waste supplies, but will damage the surface on which you use it. It may also have the potential to cause injury to yourself or others.
4. Do not substitute chemicals. Many chemicals are made only for specific jobs.
5. Never mix chemicals. You can easily destroy a chemical's usefulness or possibly create a poisonous gas or solution by mixing it with other chemicals.
6. Do not get in the habit of smelling chemicals as a means of identification. A deep breath of the fumes from some chemicals can and will injure you.
7. Protect yourself with the appropriate personal protection (PPE), i.e., safety glasses, rubber gloves, or protective clothing when using chemicals; especially if the solution you are using is a strong acid or alkali.
8. Always secure bottle caps and lids before the container leaves your hands.
9. Label all containers with the product approved Hazardous Material Information Sheet (HMIS). The label should reflect product name, health and hazard information, and required personal protection equipment.
10. Do not store harsh or liquid chemicals on overhead shelves.
11. Do not store heavy containers on overhead shelves.
12. Use proper ventilation at all times.
13. Store all flammable products in flammable, ventilated cabinets.

Note: Do not bring chemicals from home and do not purchase chemicals from anyplace other than vendors prescribed by the University. Ask your supervisor if you want to bring a product you'll like to test in our campus.

### 3M™ Twist 'n Fill™ Cleaning Chemical Management System



3M™ Twist 'n Fill™ Cleaning Chemical Management System dilutes and dispenses a wide range of highly concentrated, butyl-free chemicals from one compact dispenser.

Easy to use - just turn water on, insert bottle, twist and fill. Versatile bottle and cap design lets you change chemicals in seconds, and tamper-resistant feature helps control chemical mixing away from the dispenser. Pick and choose only the chemicals you need.

## UNIVERSITY PRESCRIBED CLEANERS

Following is a list of cleaners and solvents approved for use by the University. Ensure that product is used for its intended purpose. Using a cleaner or solvent for something other than its original intent could provide for a hazardous condition and possible risk to human health.

Additional Precautions: Vinegar is a mild acid and has little cleaning value.

As a result, it is not to be used as a cleaner or mixed with a cleaning solution.

Extremely hazardous fumes can be created when ammonia is mixed with Chlorine bleach. Chlorine Bleach should not be used in schools as a cleaning agent.

### All Purpose Cleaner

Use: 8L 3M™ General Purpose Cleaner

Method:

Daily use on most surfaces such as counter tops, desktops, floors, walls, etc. Dispense concentrated amount of solution from dispensing system and proceed with cleaning.

[Green Seal Certified](#)

### All Purpose floor cleaner

Use: 3H 3M™ Neutral Cleaner Concentrate 3H

Method:

For everyday use on floors/walls, desk tops, counters, etc. Dispense concentrated amount of solution from dispensing system and proceed with cleaning.

[Green Seal Certified](#)

### Floor Cleaner

Use: 24H 3M™ 3-in-1 Floor Cleaner

Method:

Versatile, low-foaming cleaner can be used in automatic scrubbers or in mop-on applications and won't dull floors. Dispense concentrated amount of solution from dispensing system and proceed with cleaning.

[Green Seal Certified](#)

### Glass Cleaner

Use: 1L 3M™ Glass Cleaner Concentrate 1L, 2 Liter

Method:

Daily use on glass and other surfaces.

Cleans grease, grime, soap film, finger marks and smoke. Dispense concentrated amount of solution from dispensing system, proceed with cleaning. No rinsing required, just wipe clean.

**Green Seal Certified**

#### Disinfectant

Use: 4L 3M™ Bathroom Disinfectant Cleaner

Method:

Daily use, a broad spectrum hospital grade disinfectant for use in bathrooms, showers, nurses quarters, desktops and floors. Dispense concentrated amount of solution from dispensing system, proceed with cleaning. No rinsing.

#### Carpet Cleaner

Use: Waxie FiberCare

Method: Follow manufacturer's instructions.

As needed for carpets.

Note: Odorless, low pH, extraction cleaner, neutralizer, brightener and deodorizer.

**Green Seal Certified**

#### Septic Enzymes

Use: Waxie Liquid Enzymes

Method:

Follow manufacturer's instructions.

As needed. A concentrated bacteria enzyme system for sewage digestion.

**Green Seal Certified**

#### L.O.E. Stripper

Method:

Follow manufacturer's instructions. An aggressive finish and wax emulsifier specially formulated. Fragrance-free and free of chemical substances that cause unpleasant odors. Contains no butoxyethanol.

**Green Seal Certified**

#### Floor Finish

Use: Waxie-Green Floor Finish

Method:

Follow manufacturer's instructions. A floor finish that is durable, high gloss and can be spray buffed and or/high speed burnished. Contains no fluorosurfactants, heavy metals, APE/ APEO surfactants.

**Green Seal Certified**

#### Paper Products

Toilet paper	Compliant with EPA guidelines for post-consumer waste
Toilet seat covers	Compliant with EPA guidelines for post-consumer waste
Multi-fold towels	Compliant with EPA guidelines for post-consumer waste
Roll towels	Compliant with EPA guidelines for post-consumer waste

### Liners

High Density coreless liners roll liners with star seal bottoms. “Right –Size” saves money and thinner gauge