

Clemson University

Occupational and Environmental Safety

Indoor Air Quality and Promoting Healthy Workplace Conditions in Campus Buildings:

Maintaining a satisfactory and healthy indoor environment and good indoor air quality in our highly-variable South Carolina climate requires a joint effort by all Clemson University employees. No heating or air conditioning system is able to eliminate all pollen, dust and allergens; therefore, certain maintenance and housekeeping practices must be utilized to reduce humid conditions and prevent microbial growth, such as mold and mildew within university buildings. Maintaining cleanliness in Clemson University buildings is essential for healthy air quality because microbial growth, such as mold and mildew, grows and thrives in wet or humid conditions, including those created by food or other organic materials containing moisture, wet materials, water intrusion, or spills or leaks which are not cleaned up immediately. Mold or mildew growth can occur within 24-48 hours of a spill of any liquid or water intrusion, so clean-up of spills or reporting of water intrusion must be done promptly.

University Departments will communicate and work with the custodial staff, Facilities and Occupational and Environmental Safety as needed to address any HVAC (Heating, Ventilation, Air Conditioning), cleaning or indoor air quality issues in university spaces.

Clemson University Facilities will take reasonable steps to see that HVAC systems are operating properly and maintaining temperatures within the parameters of the building. Facilities will check and perform filter changes in fan coil units at least every 6 months. Facilities also will investigate and monitor the mechanical rooms, basements and sub basements, as well as the underground tunnel system for any moisture concerns bi-weekly. Facilities will respond to reports of water leaks and intrusion when notified by the faculty, staff or students.

Clemson University Occupational and Environmental Safety (OES) will work with University Departments and Facilities as needed to conduct occupant and staff interviews and indoor air quality investigations to develop a plan to assist in locating and remediating the sources of IAQ concerns.

Building Occupants Responsibilities:

Follow the 3 Cs: Cleaning, Climate and Communication

1st "C" is CLEANING:

Because microbial growth thrives in wet or humid conditions, cleanliness in the office spaces and common areas can assist in improving air quality and promoting a healthy and comfortable living environment free of mold, pests and insects. Items such as wet personal belongings or residue in leftover food containers and spilled drinks can be a

source for microbial growth. For these reasons, the following responsibilities have been established for all building residents:

1. Custodial Services is responsible for cleaning the offices and common spaces as directed by your department. You can assist with the cleanliness of the areas by the doing the following:
 - a. Make sure your trash is emptied regularly.
 - b. Clean any spills immediately and thoroughly.
 - c. Make sure that Custodial Services vacuums carpets or rugs, sweeps floors and dusts your work areas regularly.
2. Food preparation and consumption can attract pests and insects. Avoid leaving open food containers out, seal all containers after use and refrigerate perishable foods. Dispose of used food containers and food scraps regularly to prevent attracting pests and insects and promoting the growth of mold. Keep refrigerators tightly closed.
3. Keep refrigerator doors tightly closed. Failure to secure refrigerator doors may result in defrosting of the freezer and may cause leaking onto the floor.
4. Do not place wet items (shoes, umbrellas, etc.) in your office - leave them out in the hallway (or other place) to dry.
5. Cleaning of restrooms is the responsibility of Custodial Services unless you are otherwise notified. Report any mold or mildew immediately through the Facilities work order system.

2nd "C" is CLIMATE:

Controlling room climate is essential to the success of managing indoor air quality and comfort. Moisture and humidity provide conditions which are favorable for microbial growth. CU Facilities strives to maintain optimal levels of humidity and temperature. University employees are expected to assist Facilities with this effort by following the guidelines below:

1. If the windows are operable then it is important to KEEP WINDOWS CLOSED when the heating and air conditioning is running. The condensation created during cooling season by open windows (hot air) mixing with conditioned HVAC air (cool air) indoors is capable of creating significant mold and moisture problems within the HVAC system and office spaces.
2. Close blinds early in the day to prevent the sun from heating the room. Turn off all lights when leaving the room.
3. Do not tamper with the HVAC unit. When it is humid, do not set your A/C down too low, especially in your office. Cold air causes humidity to condense out of the

air and dampen surfaces. Contact Facilities with temperature or humidity issues or water intrusion.

4. Do not cover or block the HVAC air supply or return air vents or doors where the units are located. Reduced air flow to the HVAC system can result in excess moisture and promote mold growth within the system and office spaces.
5. Do not block thermostats with furniture or equipment.
6. Do not keep live plants in your office; the moist soil harbors many molds and allergens, and can release large numbers of mold spores into the office spaces.

3rd “C” is COMMUNICATION:

1. Communication of any leaks or water intrusion to Facilities is required immediately, as it only takes 24-48 hours for mold or mildew growth.
2. Facilities should always be the initial contact for indoor air quality or water intrusion issues.
3. If you do not see a visible water leak but notice a change in coloration of ceiling tiles or wet building materials this should be reported immediately to Facilities because the source of the water leak can be identified and repaired within the 24-48 hour window when detected early.