

College of Charleston

Heating and Cooling (Temperature/Humidity Setpoint) Guidelines

Purpose:

To establish a uniform policy for building heating and cooling temperature setpoints that are aligned with industry accepted standards and energy efficient operation.

- The annual electric consumption for the College of Charleston is approximately 65 Million/kWh at a cost of approximately \$5 Million. The annual natural gas consumption is approximately 500/ktherms at a cost of approximately \$800,000.00. This combine energy consumption equates to a greenhouse gas emission of approximately 24,543 metric tons of equivalent CO₂.
- Maintaining the required heating, cooling and humidity setpoints, listed below, will substantially reduce energy consumption, energy cost and the carbon footprint at the College of Charleston, as well as create a healthier living and learning environment. Please see the table below for the required temperature/humidity setpoint ranges.

Required Setpoints and Operating Parameters:

| Parameter | Value |
|---|------------|
| Occupied Cooling Temperature Setpoint Range | 72 - 74 °F |
| Unoccupied Cooling Temperature Setpoint Range | 77 - 80 °F |
| Occupied Heating Temperature Setpoint Range | 70 - 72 °F |
| Unoccupied Heating Temperature Setpoint Range | 65 - 67 °F |
| Average Indoor Humidity | <60% |

The above listed temperature setpoints are within the range that is acceptable to 80 percent of the building occupants per ANSI/ASHRAE Standard 55, (Thermal Environmental Conditions for Human Occupancy)

<https://www.ashrae.org/technical-resources/standards-and-guidelines/read-only-versions-of-ashrae-standards>

Definition of Occupied and Unoccupied Spaces:

Occupied hours are defined as Monday-Friday 8 AM to 6 PM for most routine office uses. The occupied hours are extended up to 10 PM and may include weekends for certain classrooms, laboratories, Student Centers, Libraries, Physical Education, TD Arena, and the Fine Arts Building to accommodate extended building schedules and activities. All other hours are considered unoccupied. Residence Halls are considered occupied 24/7.

Exceptions:

Critical locations such as communication equipment rooms, computer centers, laboratories and other areas with sensitive equipment may follow a separate guideline or be exempt from the listed required setpoints. Areas that are served by the same system as the exempt spaces will be affected and could experience similar temperatures. Any concerns related to these affected spaces can be addressed via contacting Facilities Management by phone at 843-953-5550 or by email at facilitiesupport@cofc.edu.

Special Medical Conditions:

If an employee or student has a documented medical condition that requires an exception to the temperature setpoint policy, then they may submit a formal request to their supervisor (in the case of employees) or Residence Life (in the case of students) for an exception.

Building Occupants Action and Guidance:

Building occupants can contribute to make this a successful campus wide energy conservation effort. Building occupants are encouraged to wear seasonably appropriate clothing to prevent discomfort when outside temperatures are extremely hot or cold. Please keep thermostats set at the listed temperature ranges, ensure that thermostats are clear of obstructions and move away any heat generating equipment, such as lamps, computers coffee makers, etc. to allow for proper temperature sensing. Do not leave doors open and do not open windows when a space is being heated or air conditioned, as this will increase energy consumption and will adversely affect humidity levels in the space that could create an unhealthy living environment.

Use of Space Heaters, Portable A/C Units and Fans:

As a policy, space heaters and portable A/C units are prohibited due to fire code, other health and safety considerations, and energy conservation requirements. Facilities Management will permit approved space heaters /portable A/C units only in those limited instances where the building systems cannot provide temperatures within acceptable variation of the ranges stated above. Energy Efficient table or pedestal fans are permitted and considered acceptable solutions to increase your sense of comfort by improving air movement.

Questions or Concerns:

If you have any questions or concerns, please contact Facilities Management:

Phone: 843-953-5550

Email: facilitiesupport@cofc.edu

Fax: 843-953-5719

For information about Facilities Management, visit the website at <https://facilitiesmanagement.cofc.edu>

Summary:

It is imperative that we operate within these required temperature/humidity ranges to meet our energy conservation goal, greenhouse gas emissions goal and to maintain a healthy living/learning environment for all.