

General Indoor Air Quality (IAQ)

What is Indoor Air Quality (IAQ) and why is it important?

Indoor air quality (IAQ) refers to the air quality within and around buildings and structures, such as an office or other occupied work space on campus, especially as it relates to the health and comfort of building occupants. Research conducted by the EPA shows that Americans, on average, spend about 90 percent of their time indoors. Most people are aware that outdoor air pollution can impact their health, but indoor air pollution may also have significant effects. Pollution indoors may potentially be significantly higher than outdoor levels for certain contaminants under particular circumstances. Health effects resulting from poor indoor air quality can include irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue. IAQ can also impact building occupants' attendance, comfort, and performance.

If you believe there is a problem with the indoor air quality of your workspace. Please contact EH&S at (413)-545-2682 to discuss your concerns. EH&S will work with you and our campus partners to assess, identify, and help resolve the situation.

What are generally acceptable IAQ Parameters?

The Occupational Safety and Health Administration (OSHA) has established recommended IAQ and thermal comfort values for common parameters in office spaces listed in the table below. These ranges reflect parameter values which most building occupants would find acceptable.

IAQ Parameter	Recommended Levels
Temperature	68 – 76 °F
Carbon Dioxide (CO ₂)	<1000 ppm
Relative Humidity (RH)	20 – 60 % (Ideally 30 – 50 %)

Other contaminants must be below occupational exposure limits where these are established. Please note that many materials' occupational exposure limits are well above the levels that would normally be present outside of laboratory, construction, or industrial settings. When significant levels of contaminants are found in unlikely locations, the source should be identified and remediated. EH&S routinely works with various campus stakeholders to identify and implement such corrective measures.

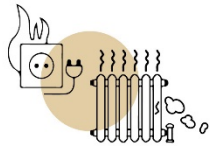
How can I maintain good IAQ in my office?

Many things can affect IAQ, however, here are some tips to help you maintain optimal air quality in your workspace.

1. Ensure that ventilation systems are in good working order. Please contact Facilities Solution Center at (413)-545-6401 (or fill out the online service request at <https://www.umass.edu/facilities/>) if you have any concerns, including cleaning vents, steam leaks, split system ACs, changing filters, ventilation rate/status, etc. See the EH&S [guidance on ventilation](#) for additional information.
2. Fix water leaks as soon as possible. Damp materials can lead to microbial growth and humidity problems. Please contact Facilities Solution Center at (413)-545-6401 (or fill out the online service request <https://www.umass.edu/facilities/>) to report any water problems. Please see the EH&S fact sheet on preventing mold growth (<https://ehs.umass.edu/preventing-mold>) for other ways you can maintain a healthy work environment.
3. Control humidity. Humidity levels can affect comfort and can lead to microbial growth if elevated. Humidity should primarily be controlled through appropriate ventilation, however, it may also be necessary to employ other means of adjustment. Use of humidifiers, dehumidifiers, or air conditioning units may be appropriate. Information on humidifiers/dehumidifiers is provided in the EH&S fact sheet (<https://ehs.umass.edu/humidifiers-and-dehumidifiers-fact-sheet>). Prior to using a humidifier or dehumidifier in your workspace, please contact EH&S if you believe there is an issue with the humidity for an evaluation at (413)-545-2682.
4. Clean surfaces and personal items regularly. Cleaning regularly can reduce airborne allergens and other potential irritants. The custodial staff typically only vacuum and empty trash and recycling for office areas. It is up to office occupants to clean desks and other personal spaces. Please see the EH&S fact sheet on housekeeping (<https://ehs.umass.edu/housekeeping-maintain-good-air-quality>) for some tips on how to clean effectively. For larger special cleaning projects, please place a request through the Facilities Solution Center at (413)-545-6401 (or fill out the online service request at <https://www.umass.edu/facilities/>).
5. Air purifiers may help to improve IAQ when improving ventilation and cleaning regularly are not enough. Please consult the EH&S fact sheet on air purifiers (<https://ehs.umass.edu/air-purifiers>) for more information. Change the filters on these units as specified by the manufacturer.
6. Use of scented products and air fresheners can introduce air pollution. Please consult the EH&S fact sheet on air fresheners (<https://ehs.umass.edu/air-fresheners-and-indoor-air-quality>) for more information. If you have concerns about air quality, please contact EH&S at (413)-545-2682 for consultation and assessment.
7. Ensure equipment that can generate pollutants is used in a well ventilated area and properly installed. Items such as heating units, copiers, printers and other equipment can

generate particulate matter and VOCs that can negatively impact indoor air quality. See the guidance on particulate matter (<https://ehs.umass.edu/particulate-matter>) for additional information.

8. Do not use pesticides in your office area. If you believe you have a pest control issues, please contact the Facilities Solution Center at (413)-545-6401 (or fill out the online service request at <https://www.umass.edu/facilities/>) for assistance.
9. Contact EH&S at (413)-545-2682 to report any concerns regarding IAQ issues. Please refer to the flow chart below for causes of common indoor odors for more detailed guidance.

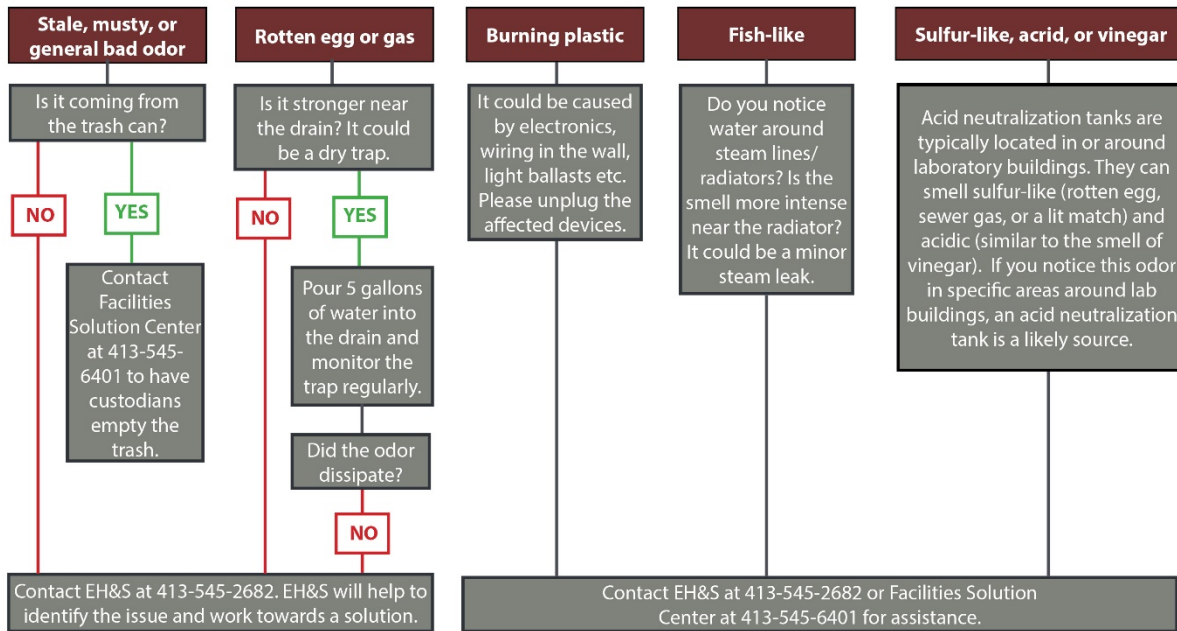


What's that Smell?

Common Indoor Odor Causes



Please use the following flow chart to determine whether the odor of concern matches with any of these common causes.



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References and Additional Resources:

1. OSHA Technical Manual, Indoor Air Quality Investigation: https://www.osha.gov/dts/osta/otm/otm_iii/otm_iii_2.html#5
2. OSHA, Indoor Air Quality: <https://www.osha.gov/SLTC/indoorairquality/>
3. EPA, Indoor Air Quality: <https://www.epa.gov/indoor-air-quality-iaq>
4. CDC, Indoor Environmental Quality: <https://www.cdc.gov/niosh/topics/indoorenv/default.html>